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THE ITALO-YUGOSLAV BOUNDARY

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IN the near future, much detailed and careful attention will be given to the numerous problems associated with political boundaries in Europe. While it is impossible at this stage to forecast the precise character of the framework of the Continental States after this War, it may be assumed that a political organization approximating to that which existed in pre-war days will be established. In some cases, the re-establishment of political boundaries will be a comparatively easy matter but in others there will be great difficulty in defining boundaries which will be mutually satisfactory to the peoples most closely concerned. In particular, there will probably be long and protracted negotiations over the delimitation of boundaries in those areas which do not readily lend themselves to a settlement. Unfortunately for the statesmen who will be responsible for the political set-up of Europe after the War, there are several areas which may be regarded as frontier regions within which the satisfactory establishment of linear boundaries will call for all the knowledge, patience, and wisdom available. Such a frontier region exists at the head of the Adriatic Sea. It has for centuries been a "zone of strain" between opposed ethnic, economic, and political interests which in the past have been irreconcilable. Few areas in Europe have been so consistently disputed, both on the battlefield and at the conference table, and it is difficult to find an example wherein boundary changes have been more frequent or where the problem of paying due regard to the interests and wishes of the people who constitute the majority of its inhabitants has presented more difficulty.

At the very outset of a study of this disputed territory, we are confronted with a difficulty of terminology which is symptomatic of the complicated history of the region. No generally accepted name for this area is to be found in textbooks or atlases. The ancient Italian Friuli is restricted to that eastern part of the Padano–Venetian Plains which ends at the Isonzo. The almost equally ancient Slav name Krn (Krain, Carniola) has always been limited in its application in the north-west by the crest line of the Julian Alps although at times the territory which bears this name has reached the Gulf of Trieste.

Professor Melik, who holds the Chair of Geography in the University of Ljubljana, applies the term The Slovene Lands to the territory which is bounded by the rivers Isonzo, Drava, and Kupa and the Adriatic Sea, while the province of Slovenia (more recently known as the Dravska Banovina) coincides with the basin of the upper Sava river which lies between the crests of the Karawanken and Julian Alps. None of these terms is strictly applicable to the frontier region proper which may be called the Julian Region although it should not be confused with the Regione Giulia which includes those territories which Italy acquired as a result of the 1914–18 war.

The Julian Region is not a geographical region in the usually accepted meaning of that phrase. Some 80 miles in length from north to south and under 50 miles at its widest part, it has neither geological nor morphological unity but it does possess what French geographers would call a personality. This quality is primarily based on the function of the region as a frontier zone. Essentially a highland area, without sufficient height or breadth to be a complete barrier, it both separates and unites adjacent regions which have far greater human and material resources than itself, so that its history has been dominated by the efforts of the peoples of these neighbouring lands to complete its subjugation. Hence it may be thought of as having been subjected to pressure from three sides and because of its inferiority in size, in numbers of people, and in material wealth, it has never been able to make a successful resistance against aggressive invaders, from whichever direction they have come. That is why I call the Julian Region a "zone of strain."

The concept suggested by this term will be appreciated more clearly if we examine the character of the territories between which the Julian Region lies. To the south-west are the Mediterranean Lands with all their characteristic Mediterranean features of terrain, climate, vegetation, and civilization. To the east and north-east, the Danubian Lands exhibit a complex of environmental conditions different from those of the Mediterranean World so that they have developed a different culture. Geography has played a directive role in their history because the Danube Valley provided a routeway for the invasions of South-Eastern and Central Europe by the Barbarian Hordes. The most direct way for these Barbarians to enter the Mediterranean Lands, with their rich cities as potential prizes, was across the Julian Region. By the latter part of the fifth century, the Lombards were already established on the Venetian Plains only to find themselves compelled to set up the Duchy of Friuli as a frontier march against the Avars who temporarily succeeded in establishing their mastery of the Alfold. Historians tell us that it was these warlike Avars who, by mass deportation, transferred the Slovenes from their original homeland in Polesie to the Eastern Alps. In this connection, they appear to have been among the prototypes of the present-day disturbers of the peace of Europe for, as Dr. Peisker writes, "The Slavs had heavy burdens to bear in providing their tormentors with supplies of food and fodder and giving themselves up to be massacred as 'befulci' in countless wars, while the Avar harnessed their wives and daughters to his waggon, violated them systematically, destroying their family life and indeed reducing their whole existence to the level of brutes." [1]

[1] T. Peisker, 'Cambridge medieval history,' vol. 2, p. 448.

The marauding activities and premature state-building efforts of the Avars brought about their own destruction at the hands of the Franks under Charlemagne and his successors who organized a great pincer movement against them. By advancing southwards from Bavaria and eastward from Friuli, Charlemagne's Franks were able to subdue the Avars and then marked their appreciation of the frontier character of the Julian Region by making it the most southerly part of their great system of *Markengrenzen*. The significance of this development for my present purpose lies in the fact that, for the first time, pressure was exerted on the Julian Region from the north. Much later, and for different reasons, this pressure was to develop into the policy associated with the phrase "Drang nach Sud-Osten," the logical outcome of which we are able to witness in the German occupation of the Balkans to-day. But the point to be emphasized at this juncture is that, at the beginning of the ninth century, when the area was already occupied by the Slovene branch of the Yugoslavs, its geographical location had given the Julian Region the stamp of a frontier zone on which pressure might be exerted from any or all of three directions. This character the Region has retained until the present time and in it is to be found the keynote to an understanding of its history.

With the collapse of the Carolingian Empire, there followed a long period of petty quarrels and family intrigues among German aristocrats for the control of the Julian Region and its routeways. This lasted from 840 until 1335, when the House of Habsburg finally succeeded in incorporating all Charlemagne's southern marks in its family domains. Therefore a wedge of German controlled territory, already subject to political and cultural influences from Central Europe, reached the northern shores of the Adriatic. The marchland of Carniola, which included most of the Julian Region, ceased to function as an east-facing outpost of Italy against the unsettled peoples of the Danubian Basin. Instead, it now became the region of contact between Austria and expanding Venice. Thus, for the first time in its history, this *Grenzemark* developed into a frontier between a land power and what was essentially a maritime State. Austria, with its narrow foothold on the Adriatic, inevitably came into conflict with the rapidly growing Republic of Venice, the maritime policy of which demanded, among other things, control of that sea.

It is not necessary to investigate here the vicissitudes of that long Austro-Venetian struggle for hegemony on the north-eastern shorelands of the Adriatic but certain results of the conflict are worth recording. Never more than a fringe of territory was acquired by Venice in this region, yet that acquisition was to have important repercussions later. It left a strong Venetian-Italian stamp on the eastern coastlands of the Adriatic which was to be one of the bases of twentieth-century Italian claims to that territory. The pattern of life in the coastal towns and their immediate environs was largely determined by Venetian influence, in a region where few human activities, other than sea-faring and its ancillary occupations, are possible. Nevertheless the Julian Region was never incorporated in the Venetian domain whereas Austria was able to strengthen its hold on the northern Adriatic, a hold which it was to reinforce by every device of economic policy throughout the nineteenth century. Furthermore, Austro-Venetian rivalry

over the Adriatic weakened the efforts of both these States against their mutual enemy, the Turk, who was thus able to develop his conquest of the Balkan Peninsula, to destroy Venetian trade in the Eastern Mediterranean, and to reach the gates of Vienna. The Turks had little direct interest in the Julian Region, except as a possible line of invasion of Venetian territory in Italy, but indirectly their conquest of South-Eastern Europe had important results for the Slovenes as it gave rise to what Professor Cvijić has called the "Metanastasic Movements" [1] of the Yugoslavs whereby many Serbs sought refuge in the Julian Region and the other Slovene-occupied areas. In consequence, not only were the Slav elements numerically strengthened there but contacts were made between the branches of the South Slav people, literary and other cultural ideas were exchanged, and the seeds of future Yugoslav union were sown.

The long drawn-out conflict between Austria and Venice weakened the powers of resistance of both parties to the struggle and thereby paved the way for the success of the Italian campaigns of Napoleon at the turn of the eighteenth century. The Republic was destroyed, the possessions of the Habsburgs at the head of the Adriatic were wrested from them, and the Illyrian Provinces were set up in 1809. For the first time something approaching a liberal administration was given to the Slovene Lands, an innovation which has had a marked influence on later political thought in that area, but what is more significant was the reason for establishing a French dependency in this part of Europe. On this point Dr. H. A. L. Fisher writes: "Several currents of Imperial policy, some clear and steady, others hidden and intermittent, are reflected in the acquisition of the Illyrian Provinces, which provided a strong bulwark against Austria, a military base against Turkey, and distant endowments for the French Marshals." [2] Undoubtedly the Provinces were primarily erected as "a strong bulwark against Austria" and the Julian Region, as the critical section of Illyria, therefore remained a frontier march, this time against Austria and under French domination.

With the disappearance of Napoleon from the European stage, the Illyrian Provinces were granted to Austria, by the Treaty of Paris of 1814, and in the following year, the Treaty of Vienna extended Austrian rule to the Lombardo-Venetian Kingdom of the Po Plains. Therefore the Julian Region, together with the surrounding territories, was incorporated in the Austro-Hungarian Empire and ceased to be an international frontier zone. Just as the extension of the Roman boundary to the Danube in A.D. 43 by Augustus had led to the establishment of a network of roads to link Pannonia and Italy, so the Treaty settlement of Vienna of 1815 was followed by the creation of a railway network to connect the Austro-Hungarian lands and the Adriatic Sea. Thus though the Julian Region had ceased to be a frontier mark, its location still retained a great value because it lay athwart the easiest and most direct way

[1] A full account of these movements is given by Dr. Cvijić in 'La Péninsule Balkanique,' chapters 10–13, pp. 114–52, Paris, 1918, as well as in "Des migrations dans les pays Yougoslaves," *Revue des Etudes Slaves*, Paris, Tome 3, 1923, fascicules 1–3, and in "Les mouvements métanastasiques dans la Péninsule Balkanique," *La Monde Slave*, No. 1, July 1917, Paris.

[2] H. A. L. Fisher, 'Cambridge modern history,' vol. 10, p. 418.

between the continental territories of the Habsburgs and their only available tide-water outlet on the Adriatic.

This re-establishment of Austrian hegemony at the head of the Adriatic occurred in the early part of the nineteenth century—a century which, from the point of view of world trade, was characterized by two developments. On the one hand, it saw the inauguration of the railway age and on the other, it saw the application of steam and steel to ocean transport. These two factors, together with the results of the Industrial Revolution, led to a rapid increase, in scale and scope, of world commerce and, despite a definite lag behind the countries of Western Europe, Austria sought to win its share in the new commercial activities. To do this, she had to connect her various provinces with the Adriatic by rail, and to gain the full advantage of this constructional work she also had to provide adequate docking facilities at Trieste to which most of the railways were to lead. Some measure of the efforts which Austria made to achieve her share in World trade is given by her expenditure on the port of Trieste.[1] The construction of Porto Nuovo took fifteen years (1868–1883) and cost 29 million Austrian crowns; by 1893 this port had been extended at a further cost of 10 million crowns. Prior to 1914, the aggregate of subsidies paid to Austrian shipping companies using Trieste was over 14 million crowns. All this expenditure, together with that on railway construction, was justified by the rapid increase of Trieste's trade which reached a peak in 1913 with over 6 million metric tons.[2] In this year, 90 per cent. of its railway traffic was Austrian, and although that country's share of the port's marine trade was not so high as this figure, still Austrian traffic amounted to more than that carried in ships of all other nationalities using the port. By mapping the destination and origin of Trieste's rail-borne traffic, it is possible to illustrate the facts that the port relied almost exclusively on Austro-Hungarian trade and that the great bulk of its traffic crossed the Julian Region. When the port passed into the hands of Italy, as a result of the 1914–18 war, no great differences were made in the general character of its trade. By 1925, when a return to something approaching pre-war trade conditions had been achieved, the earlier trends of its traffic movement remained in spite of great efforts to foster Italian trade and industries at the port. In other words, Trieste is essentially a port for Central and South-Eastern Europe and its main traffic must cross the Julian Region. Therefore, whoever controls that region is able to decide not only the destiny of Trieste but the fate of the most important Mediterranean outlet for a large part of Europe. Herein surely lies the explanation of the brutally repressive methods adopted by the German and Italian occupiers of Slovenia since 1941. Both European partners of the Axis appreciate the vital importance of the Julian railway net if the products of their Central European war factories are to reach either Italy or North Africa. Therefore they are doing all in their power to safeguard the working of those lines. According to *The Times* of 9 July 1942, "The Germans themselves declare that 1473 hostages have been shot and that 16 villages in that part of Slovenia have been razed—16 Lidices

[1] M. Alberti, 'Trieste e la sua Fisiologia Economica,' Rome, 1915, p. 46.

[2] "L'Economia della Regione Giulia," Istituto Statistico-Economico annesso alla R. Università degli Studi Ecomici e Commerciali di Trieste, Trieste, 1926.

unknown to the outside world. Over 160,000 Slovenes have been deported to Germany and the Ostland. The Italians in their area, have razed 42 villages near the railways and have taken 70,000 Slovenes to Italy. Several thousand have been shot either as hostages or in punitive raids. . . ." The same issue of *The Times* reports the text of a recent decree by Robotti, commander of the Italian 11th Army Corps, in which he states, *inter alia*, that "It is forbidden to approach the railway lines nearer than a kilometre except in towns. Trespassers will be shot immediately."

On these measures I have no comment to make except this. For two thousand years the Julian Region has been a zone of contention between the peoples and States of South-Eastern and Central Europe. I have already cited the treatment which the Barbarian Avars meted out to the Slovenes. The early Habsburg lordlings had the power of *Blutbann*, *i.e.* of life and death, over their Slovene subjects. An Italian author [1] describes the "Venezia Giulia" as a "Land of Suffering" in Venetian times because of the pestilence, brigandage, and poverty which were then rife. Whatever the rights or wrongs of the treatment of the Slovenes under Italian rule during the twenty years which preceded the present occupation, it can be no consolation to them that the latest treatment of the Slovenes of the Julian Region is in line with what has happened in the past and may be regarded as the most recent manifestation of the lot of an unhappy people who happen to live in such a zone of strain.

With this analysis of the historical function of the Julian Region in mind we may now turn to the problem of setting up a linear boundary within this frontier zone. In this connection it is necessary to pay more attention to factors of terrain and the human responses which they have evoked.

Geologically the region lacks homogeneity. Indeed, it is a junction zone between two of the greatest morphological regions in Europe, namely the Alpine and Dinaric Mountain Systems. There is dispute as to the exact location of the geological boundary between these two systems, but recent investigations [2] suggest that it lies along a line which runs eastwards from S. Lucia on the Middle Isonzo, follows the lower course of the river Baca and after leaving this river strikes eastward until it reaches the valley of the river Sora. It then follows the Sora until that stream unites with its parent river, the Sava. The existence of this junction, which I shall call the Isonzo–Baca–Sora Line, has had a two-fold effect. In common with many similar geological junctions, it has led to the development of a zone of weakness in the local rocks which in turn has caused the general elevation of the Julian Region to be less than that of the neighbouring mountains, both to the north and to the south. Furthermore, this geological factor has been of vital importance in so far as it has facilitated the formation of passes across the Region, but side by side with it must be considered the other fact that the Isonzo–Baca–Sora Line divides the Region into two very different types of country. North of it, the Julian Alps, properly so-called, are typically Alpine, with a well-defined crest line. To the south, the Julian Karst consists of highly

[1] A. Tamaro, 'La Venétie Julienne,' 3 vols, Rome, 1918.

[2] Professor G. Palese, "La Venezia Giulia," *L'Universo*, vol. 5, Florence, 1924; also Professor F. Sacco, "Schema Geologica dell' Istria," *L'Universo*, vol. 5 Florence, 1924.

dissected plateaus which, with their precipitous scarped edges and pock-marked surfaces, contain all the characteristic features of karstic topography. This physical contrast between the two parts of the Region could hardly be more marked in adjacent highland areas and is equally well reflected in the history of boundary making. Whereas for nineteen centuries, the Julian crest

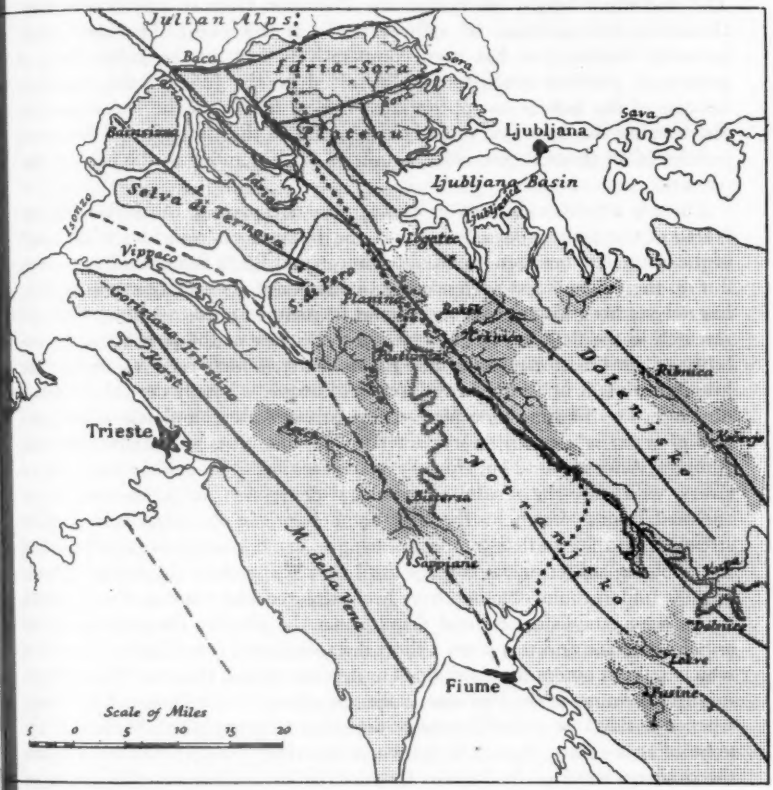


Fig. 1. Morphology of the Julian Region

has been accepted either as an inter-State boundary or as a dividing line for administrative purposes within a State, no comparable degree of boundary permanence has ever been achieved on the Julian Karst. In the former, the crest is well defined, easily recognizable, has no transverse valleys, and cannot be easily crossed. It is the kind of physical feature which lends itself to use as a boundary although it should be pointed out that the Slovenes have

spread westwards across it to occupy the middle and upper parts of the Isonzo valley. In the Julian Karst, no feature comparable with the Julian crest exists. Its general elevation is considerably lower than that of the Julian Alps. In fact, the northern mountain rim of the Mediterranean is broken here by the lowest passes east of the Rhone and west of the Vardar. The maximum height reached in the Postumia Gate is only 602 metres. Hence the concentration of railway traffic at this point. Therefore while boundary delimitation has been comparatively easy in the Julian Alps, it presents a problem much less easily solved on the Julian Karst, not only because of the lack of an appropriate physical feature in the latter area but also because this karstland must be a keypoint in the strategic and economic policies of all those Powers which contend for hegemony at the head of the Adriatic.

There is a further distinction between the two parts of the Julian Region. North of the Isonzo–Baca–Sora Line, the Julian crest coincides with a part of the watershed between the Mediterranean and Black Sea drainage systems, but on the Julian Karst such a water-divide is not discernible at the surface, has not yet been discovered, and cannot be mapped until much more careful research in the field has been carried out. Because of the porosity and solubility of its limestone rocks, the Julian Karst, which receives one of the heaviest rainfalls of Southern and Central Europe, is largely devoid of surface drainage. On the limestone plateau tops streams are completely absent and lack of water is a contributory factor to the difficulties of human existence. Running water is found only in valleys, such as those of the Idria and Vippaco rivers, which are the results of structural depression, or in the completely enclosed basins known by the Slav name *polja*. In the latter case, surface streams find their outlets by disappearing in some kind of swallow-hole and by following subterranean courses until they reappear at the surface. Some of these underground channels have been explored and mapped. For example, it has been established beyond dispute that the Timavo (Recca) disappears at San Canziano and reappears a short distance inland from Duino (Devin) at which town it enters the Adriatic. On the other hand, the river Piuca begins its surface course in the Postumia Polje, disappears at the Postumia Grottoes, whence it flows in a north-easterly direction to reappear at Planina in the polje of that name. Here it is known as the river Unec (Una) and receives the drainage water of the famous Crknica (Zirknitz) Polje and the combined waters again disappear underground at the northern end of Planina Polje, finally to emerge as the river Ljubljanica which joins the Sava just below Ljubljana. It is possible, and a comparatively easy matter, to map these inter-polja drainage systems, but to ascertain the direction of flow of underground water on the karstic plateaus is a totally different problem. The case of Notranjsko (Nevoso or Schneeberg Plateau) illustrates the difficulty clearly. On the surface of this characteristic karstic plateau there exists not one surface stream although the rainfall on its highest parts averages over 2000 mm. (+80 inches) a year. The whole of this water disappears underground, but it is not known whether it is organized into a system of subterranean drainage channels or not, so that, in our present state of knowledge, it is impossible to define the watershed in this area. All that is certain is that, to the east and

north-east of Notranjsko, the intermittently subterranean headstreams of the Ljubljanica flow towards the Sava and thence to the Black Sea, while to the south-west the Timavo and the Fiumara rivers collect the surface waters and carry them to the Adriatic. The only part of Notranjsko where the drainage lines are known is at its north-western edge where the Piuca system undoubtedly drains to the north-east, *i.e.* to the Sava, so that the Black Sea–Adriatic watershed must be drawn close to the western edge of the plateau at least in this part.

These differences of topography and hydrography between the Julian Alps and the Julian Karst would probably have aroused only academic interest if the whole Julian Region had not been a frontier zone within which it has frequently been necessary to draw linear boundaries. For the first time in history, the facts of physical geography were urged as the basis of boundary delimitation after the 1914–18 war. Towards the end of 1918, the Italian Government circulated among the Allied Governments a memorandum entitled "The Italian claims on the Alps and in the Adriatic," [1] in which the official Italian territorial demands in the Julian Region were put on record together with the bases on which the claims were made. The Memorandum contended that the only boundary which would secure Italian safety in the north-east was the watershed between the Adriatic and Black Sea drainage systems. It stated that "This is the geographical boundary along the Alpine watershed. It is the only boundary which, being formed by an actual mountainous obstacle—the formidable wall which has always been considered Italy's frontier—has any intrinsic value as a necessary and real safeguard." In the Julian Region, the claimed boundary was defined as follows: ". . . it is necessary, in Julian Venetia also, to follow the indications of nature and the warnings of history and to carry the new frontier of Italy to the watershed of the Julian Alps, from the Pass of Camporosso to the Quarnaro." It will be noticed that this claim completely ignored the fact that the Julian Alps end at the Isonzo–Baca–Sora Line and that the "indications of nature" had not been sufficiently explored to delimit the precise watershed immediately to the north of the Quarnaro. Nevertheless it reveals clearly that the geographical basis of the Italian boundary claims was this Black Sea–Adriatic watershed. Such a principle could have been applied to the Julian Alps with some justification, but its application to the Julian Karst was bound to lead to an anomalous decision.

Nearly six years after the cessation of hostilities in 1918, the Italo–Yugoslav Boundary was at last established, after a period of acrimonious dispute between Italy and her Allies and later between Italy and the newly created Yugoslavia. It is not necessary to analyse all the negotiations here, but their results are interesting in so far as they illustrate the implementation of the Italian thesis of the watershed boundary. For various political and economic reasons, the Italians were successful in imposing their wishes on the Yugoslavs who were compelled to abandon their own claims, together with approximately four hundred and fifty thousand of their people, and the Rapallo–Rome Line was adopted. The "Fiume Question" has been dealt with elsewhere

[1] An English translation of this document is given by Miss Muriel Currey in 'Italian foreign policy,' London, 1932, pp. 15–30.

so that I shall confine my comments to that part of the new boundary which was defined in Article 1 of the Treaty of Rapallo of 1920 and which is shown on my map as the Rapallo Line.

It is significant that the term watershed is used in a much more restricted sense than in the original Italian official claims. The second paragraph of Article 1 of the Treaty [1] states that the boundary shall be a line, to be fixed on the ground, ". . . From Mt. Jalovec (point 2643) onwards: a line following the watershed between the basin of the Isonzo and that of the Save from Wurzen Save as far as Mt. Tricorno (Triglav) (point 2863); thence following the watershed between the basin of the Isonzo and that of the Wochein Save (Bokinj) as far as the north-eastern slopes of Mt. Mozic (point 1602), passing through the points 2348 (Vogel), 2003 (Lavsevica), and 2086 (Kuk)." Nowhere else is the watershed mentioned. The southward continuation of the boundary is defined as a line joining a series of peaks in the southern part of the Julian Alps. As soon as the Karst is reached, the line is related to a number of villages and roads, but in the region of Notranjsko the Treaty lays down that the boundary shall follow the *lower eastern slopes of that plateau*. Both crest line and watershed theories were abandoned here so that practically the whole of Notranjsko was incorporated in Italy.

When it is realized that the eastern slopes of Notranjsko are steep and well defined, in point of fact, they are a typical fault-scarp edge, it will be seen that Italy gained a strong strategic boundary in this section of the frontier region. A close examination of large-scale maps and investigations in the field reveal however that the case of the eastern slopes of this plateau was not an isolated example of the manner in which the boundary line was laid down in Italy's favour, both from the military and the commercial points of view. Mere territorial aggrandisement could not have been the main Italian objective in pushing their new boundary as far as possible to the east because the whole Julian Region is relatively poor in human and material resources. Of far greater value to Italy was the acquisition of a strong strategic boundary and even more important was the control of the Julian passes which the Rapallo Treaty gave her. Three further examples, one from the Alpine section and two from the karstlands, will serve to show how the actual boundary line was drawn to serve Italian interests.

The narrowest part of the Julian Alps, where the Baca and Sora rivers representing Mediterranean and Black Sea drainage respectively, approach most closely, is in the Piedicolle district. Here the Piedicolle (Podbrdo) Pass is only 804 metres in height and is used by the only practicable road joining the upper parts of the Isonzo and Sava valleys. Moreover because the Julian Alps are at their narrowest here, the constructors of the southern extension of the Tauernbahn, from Villach to Trieste, decided to build the Bohinj tunnel at this point. Therefore the Piedicolle district may be said to be the keypoint of the Alpine section of the frontier region and the delimitation of the boundary in relation to crest line and watershed is particularly significant here. Immediately to the north-east of Piedicolle village, the boundary was drawn well to the Yugoslav side of the crest while the whole of the Piedicolle Pass, together with its eastern approach, was included

[1] League of Nations Treaty Series, vol. 18, Geneva, 1923, No. 477, pp. 387–403.

Risnjak, typical karst summit, south-east Notranjsko

of the central section of Julian Alps, south-west of Triglav. Valley of Seven in foreground is a National Park

Idria–Sora plateau south of Isonzo–Baca–Sora Line

Rakek Polje enclosed by karstic plateau. Trieste–Ljubljana railway

'Jama' through which waters of Crknica Polje find outlet in wet season. Workmen clearing floor to reduce flooding

Italian territory. To the south of the pass, the boundary again passed to the east of the crest and therefore gave to Italy the heads of the Yugoslav valleys of the headstreams of the river Sora.

Farther to the south, the valleys of the rivers Idria and Sora are connected by the Idria Pass, at 729 metres, which is utilized by the main Idria–Ljubljana road. According to the latest edition of the Italian official 1/25,000 map, this is a first-class road, more than 8 metres in width and capable of carrying heavy vehicular traffic. In this district there is no crest line, as it is karstland, but the watershed is at the Idria Pass and it might have been expected that the boundary would follow the watershed particularly as, for various geological and topographic reasons, it can be defined with reasonable accuracy here. But again the boundary was drawn well to the east of the watershed in such a manner that not only the Idria Pass but its two approaches from Yugoslav territory came completely under Italian domination. Besides cutting directly across the Upper Sora and its tributary, the Ossataizza, it also followed the top of the steep eastern edge of the Versenico Plateau, and therefore Italy obtained positions from which both longitudinal and transverse movement, military and commercial, could be controlled if and when the necessity arose.

But what is probably the best example of the abandonment of the watershed principle is to be found in the neighbourhood of the Postumia Gate (see Fig. 2, p. 60). As we have already seen, this district contains by far the most important routeway across the Julian Region, carrying the bulk of both railway and road traffic between Ljubljana and Trieste. Clearly, control of this most important link between Central Europe and the Adriatic would be an advantage to the possessors of Trieste. Therefore the international boundary was drawn so as to include the whole of the Postumia Gate in Italy. In spite of the fact that the drainage, both at the surface and underground, is towards the Sava, the boundary line follows the western edge of the Planina and Rakek Polja in such a way that the part of the Sudbahn which is of the highest strategic value falls to Italy. Furthermore, this arrangement gives Italy control of the important roads which fan out north-eastwards from Postumia. As with the Piedicolle and Ziri districts, practically every military strong point fell into Italian hands. In view of these circumstances, it is not difficult to understand why Postumia was made the headquarters of an army corps and why the roads in the district were increased in width, quality of surface, and traffic-bearing capacity. Details of fortifications and military preparations generally were obviously not obtainable, but the speed with which the Italian invasion and occupation of western Slovenia were carried out in April 1941 suggests that the advantages gained by the Italians in the delimitation of the Rapallo Line were utilized to the full in their aggressive policy against Yugoslavia. In fine, the boundary policy, based on the use of crest line and watershed, and formulated in their own Official Memorandum of 1918, was abandoned by the Italians wherever military exigencies demanded it.

To many of us, international boundaries are merely red lines drawn on maps and boundary changes imply little more than the necessity of learning new names. But to the people, in whose homeland a new boundary is set up, the consequences are usually of greater meaning. To those Slovenes who inhabit

Surface streams
Explored subterranean channels
Unexplored subterranean channels
Dolinas
International boundary
Trieste-Ljubljana railway
Motor roads
Contours at intervals of 50 metres
Scale 1 mile
PLANINA POLJE
Planina
Rakek
RAKEK POLJE
Unec
GAMBERI POLJE
Gamberi
Natural Arch
Grotta Nera
Abisso della Pipa
Grotta di Postumia
Postumia
POSTUMIA POLJE

by far the greater part of the Julian Region, the establishment of the Rapallo Line meant the separation of nearly half a million of their people who not only found themselves under an unsympathetic political regime but were compelled to live under economic and legal systems different from those of their kinsmen. In many cases private estates were cut in two and the peasants' centuries-old grazing rights on the Alpine pastures were suddenly denied to them. Roads and tracks which had become the traditional means of communication between towns and villages, between the arable lands of the valley floors and the mountain pastures, were equally suddenly closed. These are serious matters, striking at the heart of human existence, more particularly in a region where, at the best, life is hard and where subsistence can only be secured by unremitting toil together with the maximum utilization of meagre material resources. It is not surprising therefore that the Slovenes resented the establishment of the Rapallo Line and considered that their case had not been treated fairly by the Allied Powers and least of all by Italy.

Italy was able to enforce the acceptance of the new boundary by the Yugoslavs mainly because she was in a position to use her political influence as one of the successful Allied Powers. This she did against the opinions of many of the well-qualified advisers who put their services at the disposal of the Allied statesmen. In the decade 1914–24, at least six major attempts to settle the Julian Boundary were made. Two significant facts appear from an analysis of these suggested boundaries. In the Julian Alps, four of these lines, namely, the eastern limit of the Italian claim against Austria in early 1915, the London Line of May 1915, the Wilson Line of 1919, and the Rapallo Line of 1920, were coincident in following the Julian crest. On the Julian Karst however each of these four lines occupied a different location, but it was the last of them, *i.e.* the Rapallo Line, which gave Italy the largest share of Slovene occupied territory and with it control of the Julian passes. This surely points to the highly debatable character of the karst section of the Julian Frontier Region wherein there exists no mountain crest and where the Black Sea–Adriatic watershed has not yet been defined. The very latest boundary settlement in this land of constantly changing boundaries emphasizes the point. In July 1941 the occupation of Slovenia led to the setting up of a German–Italian Boundary in the Julian Region. It is interesting and illuminating to discover that this newest line, temporary as it probably will be, follows the crest line of the Julian Alps but at Ziri turns eastwards to enclose south-west Slovenia and Ljubljana in Italy before it turns back again to the south-west to reach the Kupa river which is now the boundary between Italy, Germany, and Croatia. By this means Italy has succeeded in still farther advancing into the Danubian Lands and has brought another two hundred and fifty thousand Slovenes under her rule.

This newest boundary-making effort, together with the attempts made between 1914 and 1924, are only the twentieth-century manifestations of the difficulties inherent in the geographical features of this frontier region. From Roman times onwards the Julian Region has been characterized by continually changing boundaries. In the early part of the first century A.D. Augustus was the first to delimit and demarcate a dividing line here, preliminary to his extension of Roman authority to the Danube. Nearly eight

Fig. 3. Two millennia of boundary making at the head of the Adriatic

centuries later Charlemagne set up a frontier mark here against the Barbarians. In 1335 the Habsburg territories reached the Adriatic, but it was not until 1789 that Austria was able to establish its authority over a solid block of territory at the head of the Adriatic, and during those four-and-a-half centuries of Austro-Venetian conflict there were literally dozens of local boundary changes in the Julian Region. Napoleon attempted to revive a territorial arrangement something like that of Charlemagne, but the age of frontier marks had disappeared and the French Illyrian Provinces were short lived. They were succeeded by a further extension of Austrian supremacy, but the nineteenth-century unification of Italy saw the Austrian boundary retreat towards the north-east and the war of 1914–18 brought about the elimination of the Austrians from the Adriatic Lands. The successful results of Italian Irredentism carried the Italian boundary to the crest of the Julian Alps and across the Julian Karst, while the German–Italian cooperation of to-day has enabled the junior Axis partner to acquire another slice of Yugoslav territory. When the major boundaries associated with these territorial changes are mapped, we get a composite picture of the history of the Julian Region. There can be but few areas of equal size in the world which have suffered from so many fluctuations in political domination.

From the time of their entry into the Region in the sixth century until 1919 the Slovenes played no part in the setting up of boundaries in the land which they have made their own by centuries of occupation. Their fate has been that of onlookers while their more powerful neighbours or conquerors parcel out their lands and draw boundaries to suit their own interests. In 1917 the Slovenes joined their fellow Yugoslavs in signing the Pact of Corfu which announced to the world the community of interests and policy of all the South Slavs, but their tragic history continued. Once again their land and people have been divided by alien Powers. Is it too much to hope that, when the present war is over, the Julian Problem will be studied carefully and objectively and that those who have to lay down the international boundary at the head of the Adriatic will bear in mind two things: one, that every boundary which has been hitherto drawn on Slovene soil has been dictated by the principle that might is right, and the other, that, in the end as in the beginning, successful boundaries tend to follow geographical rather than political considerations.

DISCUSSION

Before the paper the PRESIDENT (The Rt. Hon. Sir GEORGE CLERK) said: Dr. Moodie, who is to read the paper this afternoon on the Yugoslav–Italian Frontier, is a Lecturer in Geography on the staff of the University of London who has made a particular study of the very interesting geographical problems presented by this frontier region, in which so many different political boundaries have been drawn. Very often they are defined as watersheds, and the particular interest of this country is that the rivers disappear underground and it wants a great deal of work to decide what is their relation to one another and where the watershed is. This afternoon Dr. Moodie will give us a study of the whole history of boundary definition in this area, with particular reference to the difficulties arising from physical geography which I have indicated.

Dr. Moodie then read the paper printed above, and a discussion followed

The PRESIDENT: We are honoured this afternoon by the presence of Dr. Krek, the Deputy Prime Minister of the Royal Yugoslav Government. I wonder if he would like to say a word on the lecture to which we have just listened?

Dr. MIHA KREK: In the name of all of us and especially in the name of my Yugoslav friends who are present here and have been so lucky as to hear Dr. Moodie's lecture, I would like to thank the Royal Geographical Society, and particularly Dr. Moodie, for his very interesting exposition on that part of Europe which occupies so great a place in our hearts at the moment. Although some of us may have our own points of view on some of the smaller details of how to bring into harmony both the laws of geography and the rights of nations to live, we do indeed appreciate the fact that this young English scientist has devoted so much splendid work to this problem—the north-western part of Yugoslavia—one of our topical problems of the day. We feel sure that this research work of Dr. Moodie's will play a large part after the war in helping to unite our territory at this vital point of Europe. We Yugoslavs are grateful to him for this, and we thank him from our hearts.

The PRESIDENT: I believe that Mr. Beaver, Lecturer at the London School of Economics, who knows the Balkans and the region about which we have heard very well, is with us; perhaps he would like to say a word.

Mr. S. H. BEAVER: I was hoping I might not be called upon this afternoon because the region dealt with by the lecturer is, so to speak, my Balkan blank spot. The Balkans is far too large an area for any one to know throughout in detail. Personally I have only touched on the fringe of the Slovenian region. However there are one or two remarks I would like to make.

When I was last on this platform about two months ago after a lecture by my colleague, Dr. Dudley Stamp, I made a remark to the effect that geographers had got to have a say in the planning of Britain. We have had very good evidence this afternoon that geographers have also to have a say in the replanning of Europe and of the political frontiers, if there are to be any frontiers in Europe after this war. The real trouble at the moment is that there are not enough geographers to go round. That is our fault for not having produced them during the last twenty-five years. But that's by the way.

Regarding Dr. Moodie's paper it seemed to me that there was an item he, perhaps intentionally, missed out, because after all he was dealing simply with the delimitation of the frontier; but he made no attempt to show us the actual distribution of the Slovene people in the region. He admitted that in the north they have spread across the frontier, but I should have liked to see a map showing the actual distribution of Slovene and any other peoples who happen to live in the region. It is all very well trying to delimit a natural geographical frontier on the base of a watershed, shall we say, but what happens if you still leave a lot of Slovenes out on the western side of that watershed? They are not going to be very happy, are they? I cannot help feeling that after this war there has got to be a certain amount of reshuffling of the European population. We all admit that the frontiers after 1918 were in many cases bad ones, and bad for various different reasons. But I think it is true to say that Hitler has hit on one good notion, at any rate; and that is, that in order to get over frontier problems you shift the population. I agree it is very uncomfortable for the population, but what other solution is there? There seems to me, for example, no other solution of the East Prussian problem but that the Germans should all be deported from East Prussia. And there are various other areas of Europe where some such mass deportation has simply got to take place, otherwise you cannot draw a frontier which is going to satisfy the geographer, which is going to satisfy

politicians, which is going to satisfy the military authorities, and at the same time is going to leave a happy population, free from discontented minorities.

Dr. MOODIE: I should like, if I may, to take this opportunity of making a point with regard to Mr. Beaver's remarks. I am conscious of having neglected many aspects of the problem. One has to. I have talked for an hour and a quarter and have only dealt with certain aspects of the problem. I have said almost nothing about the ethnic side of it; I have dealt briefly with the history, with some of the attempts at drawing boundaries, and the results which have come out of these attempts.

I have made some maps of the distribution of the peoples, but Mr. Beaver will appreciate that the difficulty is one of obtaining reliable statistical data. My maps are based on the Austrian Census of 1910, which was the last census in the Julian Region to make specific differentiation between races. Those figures and those maps show that all the northern and middle parts of the Isonzo Basin, the so-called Politische Bezirke of Tolmein and of Görz were about 96 per cent. Slovene occupied. Farther south, in the Southern Isonzo Basin, the percentage was much smaller especially in Gradisca. In Trieste and in the City of Görz, there was a majority of Italians, but not an overwhelming majority, not even in Trieste, according to these census figures.

The censuses which have been taken since that of 1910, the last before the first world war, do not differentiate according to races satisfactorily. Even the criterion of language is unsatisfactory because, as you may know, the Italian returns are made on the bases of the language "usually spoken" and the language "spoken in the home." Such terms are really meaningless. You may have Slovenes completing their census forms to suit some purpose other than that they really wish to serve. They may feel under compulsion to state that they usually speak Italian whereas you know that they do not. If you associate with them you will find that they normally speak Slovene.

I have avoided the ethnic aspect of the Julian Problem on this occasion because my aim was to analyse other aspects and also because of the unreliability of the available statistical data.

The PRESIDENT: I think perhaps I can give an instance of transfer of population less hard and more successful than Hitler's transfer of which Mr. Beaver spoke. As you will all remember, one of the most drastic and statesmanlike actions of the late Mustapha Kemal Ataturk, was the transfer of the Moslems in Greece and the Greeks in Turkey into one another's country, a very bold experiment. That at first involved the difficulty of people being transferred to quite a different sort of life and much temporary hardship, but in a very few years it justified itself extraordinarily.

It is getting late and I think all that remains for us to do is to thank our lecturer for a most interesting paper which brings out extremely clearly and well the really close connection between politics and geography, showing the importance of geography in coming to political decisions. I must express to Dr. Moodie our thanks for a very interesting lecture.

A MOTOR JOURNEY ROUND SOUTH AMERICA

MAJOR PAUL PLEISS

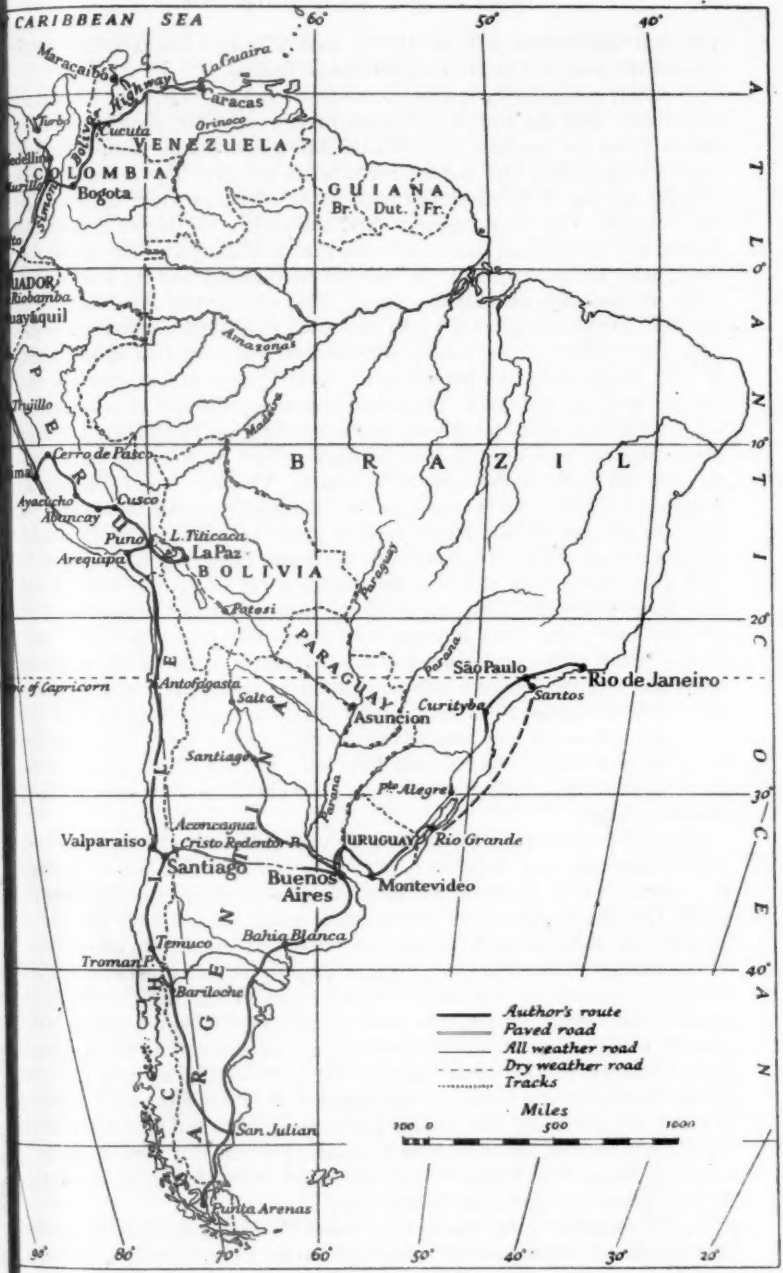
HAVING participated in the design of equipment for the Citroen-Haardt expeditions through Africa and the Croisière Jaune across middle and east Asia, and having supplemented that experience by a motor trip across Europe, Anatolia, Persia, and Afghanistan to Calcutta, I felt more or less qualified to attempt to take the first car from Venezuela on the Caribbean Sea to the Straits of Magellan.

Maps are helpful but not in themselves sufficient; recourse must be had to local information finally made into a route sheet to serve as a running guide. On the basis of information collected over a period of eight months it seemed that the trip was possible.

Every man who has made difficult trips by car has his own idea of what the ideal car should be. For the trip to India in 1938–39 the decision was to use a standard passenger car chassis of a well-known make and mount a specially built all-steel body of a van type but having four doors. The same car was used on this journey in South America. Because only two were to be in the party two individual bucket seats were used of the adjustable reclining type which could serve as beds. Two of the windows were screened. The windscreen opened wide as it was found that by opening it and closing all windows an overdraught was created inside the car. Standard tyres were fitted and two spares carried. Other spares were reduced to a minimum because one never takes what is needed in the end, and because we had to carry chains for all wheels, tow ropes, axes and shovels, two jacks, and a bundle of heavy wire for all purposes. Because of possible complications in crossing borders, no firearms were taken. The camera equipment was extensive: four high-speed 35 m/m cameras with a variety of telephoto and wide-angle lenses, two for colour film and the others for black and white, and a motion-picture camera, 16 m/m, with telephoto lenses used mostly for colour film. The car was fitted with two altimeters and one grade meter.

My companion on the trip was Herbert C. Lanks. Very early we divided responsibility; I took the responsibility for driving and keeping the car running and he busied himself with the cameras and cooking.

Shortly before Christmas 1941 the car and kit were loaded on a tramp steamer out of New York bound for La Guaira, Venezuela. On New Year's Day we started from that city clinging to the sides of the overshadowing mountains. A broad and banked concrete highway climbs the heights to Caracas an hour away and 3000 feet above the sea; an old colonial city, the birthplace of Simon Bolivar; a pleasant city with a delightfully mild climate. The Simon Bolivar Highway to Bogotá and Quito follows the route taken by Bolivar and his troops from Caracas to the west during the Wars of Independence. For the first 100 odd miles we had a concrete road, the last we were to enjoy for a long time. A gravel and earth road but of fair surface followed, and because it is well drained and well maintained it is actually a road for all seasons and weathers, but dusty. During the whole trip dust was one of our


CARIBBEAN SEA
60°
50°
40°
Maracaibo
La Guaira
Caracas
Pan American Highway
Cucuta
Orinoco
VENEZUELA
COLOMBIA
Bogota
GUIANA
Br. Dut. Fr.
ATLANTIC OCEAN
Amazonas
Madeira
Cerro de Pasco
BRAZIL
Ayacucho
Abancay
Cusco
Puno
L. Titicaca
La Paz
Arequipa
BOLIVIA
Patosi
Paraguay
PARAGUAY
Parana
São Paulo
Rio de Janeiro
Santos
Antofagasta
Salta
Asuncion
Curityba
Santiago
Pto Alegre
Aconcagua
Cristo Redentor P.
Valparaiso
URUGUAY
Rio Grande
Santiago
Buenos Aires
Montevideo
Bahia Blanca
Temuco
Bariloche
ARGENTINA
San Julian
Punta Arenas
Author's route
Paved road
All weather road
Dry weather road
Tracks
Miles
100 0 500 1000
80°
70°
60°
50°
40°
30°
20°

principal annoyances and we always used a wetted handkerchief boun around the nose and mouth in highwayman fashion.

For some 400 miles the road is up and down over the rather low mountains sometimes using the bed of a temporarily dry river, but good time can b made. From the southern end of Lake Maracaibo the oil companies hav built a wide asphalt road for the 150 miles to the city. The country here i tropical and the life is primitive except at the oil camps where all is moder and sanitary. The main highway then approaches the higher Venezuelan Andes, and the first real climb was to the pass of Mucuchies, over 14,000 feet The grades are not excessive, the hairpins fairly broad, and the road surfac while not smooth is satisfactory enough. This was the first experience, often repeated, of a mountain road hardly wide enough to allow another car to pas except at provided places, entirely without fences or protection against a dro of from 1000 to 3000 feet, but with blind corners, some so sharp that the roa seemed to go off into space. Then there was always the fear that the outside edge of the road would break away and so one hugged the cliff side just shor of scraping one's mudguard. The landslides which we so much feared later on were not found on the roads of Venezuela. The ascents and descents are long drawn out, which makes generally for easy gradients, but not always. The climb to the pass of Mucuchies starts at about 1500 feet and goes steadily upward: say an ascent of 12,000 feet in 100 miles. Here there is no rule of the road as in Switzerland of giving the ascending car always the right of way, mail buses excepted. Loose stones on the road, sometimes large ones left by previous cars using them as stops, and always unexpected pot-holes are a danger. Only skilled and courteous drivers seemed to be on the mountain roads and with the help of a mile-range siren we avoided accident. Performance of the car suffers from the high altitudes. There is little to be gained by changing carburettor jets because the altitude is never maintained; the jets were left and the air was adjusted from time to time. Performance of the driver suffers too, and all physical effort was so far as possible avoided; deep breathing helps.

Onwards to the border of Colombia we were constantly climbing to 10,000 feet or more and then dropping back to 5000 and sometimes lower. Though the equator is only 9 degrees to the south, of snow-capped peaks there are many. The *paramo* above the timber-line is desolate and windy. The higher altitudes are drenched with fog and rain; mountain streams are everywhere.

The border of Colombia is at Cúcuta in a low fertile valley just a little above sea-level, oppressively hot after the cold winds of the heights. As in all countries of South America we were treated at the borders with every possible consideration, and in spite of the great amount of time which seemed to be necessary we were made always to feel welcome. Straight up from the border the road climbs within 100 miles to another 12,000-foot pass; Colombia is nearly all mountains. We remained at between 6000 and 10,000 feet until we reached Bogotá, ten days from Caracas, of which five were taken by a detour to Maracaibo. Roads were a little better surfaced than in Venezuela, but still gravel and earth, and always dusty.

Bogotá, founded by the Spaniards as Santa Fe de Bogotá at the beginning of the sixteenth century on the ruins of an earlier Chibcha Indian capital, is

now a queer mixture of colonial and of the most modern architecture in the central part of the city. The main plaza retains however the tranquillity of old times. The bulk of the population seems to be quite pure Indian. The climate is equitable despite its 7000-foot elevation, which is uncomfortable for strangers, but the inhabitants look extremely robust.

Because we wanted to cover as much of the Pan-American Highway as possible we decided to strike westward and north as far as possible towards the Panamanian border. By easy stages the route descended from Bogotá, first into the valley of the Magdalena and then into the valley of the Cauca at Medellín, the second city of Colombia and considered by its proud inhabitants, of Basque descent, to be the most important city. It is in a long and fertile valley, exceptionally well cultivated, and easily the most prosperous and progressive part of Colombia: the only part, except the coastal area, free from rocky mountains. What will be the Pan-American Highway climbs out of the valley to the north. The country is broken, with fairly high hills, and the road might be much improved but is passable. It continues northward for 300 miles and stops at an unbridged mountain torrent. From this point to the coast on the Gulf of Urabá at Turbo is only 100 miles, and it is expected that the road which is now being worked on will be completed within a year. It will be one day a road of great strategic importance, but it is not the route projected for the Pan-American Highway, which is designed to swing to the west to the border of Panama. No work has yet been done on it, and a ferry route from Turbo to a port in Panama seems the simplest solution. To see the ground in the gap between the Panama Canal and the present end of the northern road we took a plane leaving Medellín for the Panama Canal. Thanks to an interested pilot we had the chance of flying low over the entire area and were readily convinced of the extreme difficulty of building a road across the deltas of the Atrato and León rivers.

After this brief excursion at 200 miles an hour we descended again to the car with its 20, and turned southward towards the mountain barriers of Colombia and Ecuador. Now for the first time we were on the main route of the Pan-American Highway, no better and no worse than the roads we had been travelling. Here we were in the Cauca valley with its air of the tropics, and while the route was hilly for the first 300 miles the mountains were ahead of us. At Pasto we were stopped by a chain across the road and the authorities insisted, as the regulations required, on a detailed inspection of the car's power, brakes, lights, steering gear, tyres, tools, and driver's ability. The inspection was far from perfunctory. Here was the beginning of the one-way traffic through the mountains, twelve hours each way with change at noon and midnight. To make doubly sure the guards telephone to the next station to learn if there are any stragglers or local traffic in the way. There are ten control stations, and at each the way is barred by a heavy chain until permission is obtained to pass. The control of cars and traffic is most efficiently carried out in a firm and serious manner. While the maximum elevation is only 12,000 feet the road is extremely narrow and dangerous and the one-way traffic gave us a certain sense of security but did not make the sharp turns and narrow hairpins any easier to get around. The mountain scenery with the road looping off into the distance was spectacular, but the country was barren and

rocky. As we progressed south the inhabitants became more Indian i character and this continued into Ecuador. This whole area has been subje to violent earthquakes and most of the rather primitive villages have be destroyed at one time or another.

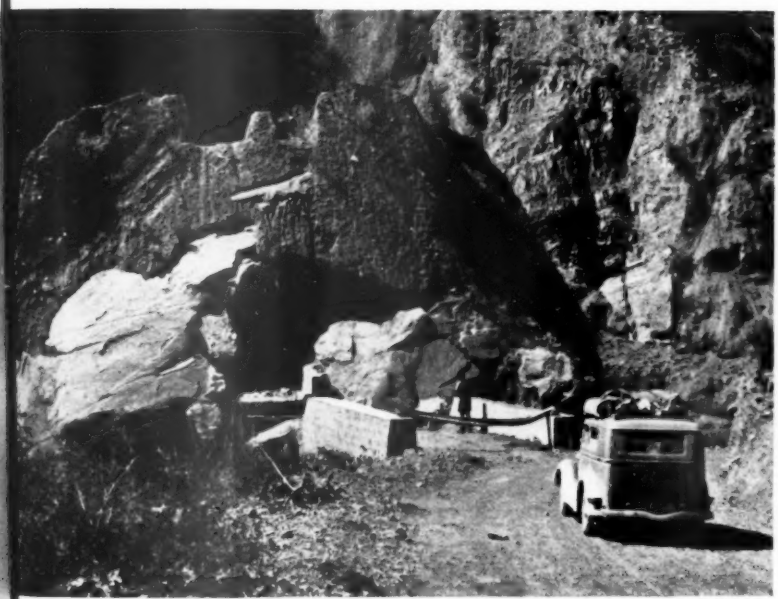
The border of Ecuador is at the natural bridge of Rumichaca, and fro here all the way to Quito the road is through the desolate *paramo* always ov 8000 feet or more and with frequent 10,000-foot passes. The snow-capp peaks, of which Ecuador has a great profusion, kept us company. Here i Ecuador we found the purest of the Indians, and had the good fortune to pa through on a Saturday and Sunday, and saw their week-end markets, t which large cakes of ice are brought down from the glaciers above on th backs of men before dawn. Here we saw our first llamas; the supercilio beasts of burden sit down and refuse to move until the load is reduced t exactly 40 lb. Shortly before reaching Quito we passed a monument whi marks the equator. At 8000 feet and surrounded by snow mountains it cold on the equator.

At Quito, an unspoiled pure colonial city, we had covered about 2500 mil and the car required minor adjustments and overhaul for the hard way ahe From Quito the road has carefully laid blocks of hard stone to the width one car, on either side dirt paths sufficiently wide to permit of passing. T wheeled traffic stays so far as possible on the paved centre and the soft sid are used for the unshod herds of goats, cattle, sheep, and llamas. The pav section is far from smooth. This was the post road of the Incas between th capital at Cusco and the sub-capital at Quito, and was used later by t Spanish conquerors.

At Riobamba, 100 miles south of Quito, we made a detour over the east range of the Andes and dropped down to the beginning of the plains wh form the basin of the Amazon, to the headwaters of the Pastaza, a rushi white water stream from the mountains to the west. Not far from h Orellana, the lieutenant of Gonzalo Pizarro, brother of Pizarro the Conquer in 1540 built his boat and sailed it eventually to the mouth of the Amaz This area is part of the disputed territory between Peru and Ecuador. probable petroleum resources, gold, timber, and agricultural possibili make it a worth-while prize.

We returned to the highway to continue south as far as possible. There at present a gap between Ecuador and Peru, which will shortly be closed; b we came to a sudden stop only 25 miles south of Riobamba, where the r came to a dead end and a narrow impassable trail took its place. No car h yet been able to force a passage from this point into Peru. To build the r through this high plateau to the lower ground in Peru will tax the engineer ability of the builders, but funds have been provided, and a date three ye hence has been set for completion. So we retraced our way north a sh distance towards Chimborazo and then went west on the way to Guaya and the sea. We regretted leaving the thin cool air of the heights, the nigh camps, sleeping out in the open under the brilliant stars, the evening mea the camp fire. We were now in the rainy season and the descent fr 12,000 feet to sea-level in 30 miles took seven hours. Because of nar hairpins, fierce gradients, and slippery surface, progress was extremely s

Evening camp in the highlands of Ecuador



Washed out bridge at entrance of tunnel in Peru

The equator monument north of Quito, Ecuador

and always hazardous. From the cold of the plateau we reached the true tropics at Guayaquil. The highland Indians were replaced by natives of negro aspect and the ponchos by practically nothing at all. At Guayaquil we were forced to load the car on a boat as the only way of reaching Peru.

Across the bay and a little beyond we landed overnight at Talara. We turned slightly inland over fair roads but with plenty of mud in the lower spots, mud of the consistency and slipperiness of vaseline. Unbridged streams were forded, always an exciting adventure. The Rio Chira was crossed on two canoes lashed together and poled by four natives working furiously against the swift current. Farther south we met the asphalt-paved road which extends along the coast for the 600 miles to Lima. It is the finest example of a modern highway in South America, smooth-surfaced, wide, banked at curves, well marked, and splendidly maintained. Always with the Pacific in the distance it rises and dips across river basins which intersect it. Apart from the estuaries of the rivers which are oases, the country is bleak and desolate, but although only a few degrees south of the equator not uncomfortably hot, as the cooling waters of the Humboldt current keep the temperature equable. Drifting sand is a serious road problem here. The strong constant south winds blow the fine sand inland from the beaches up to great heights, so that the sides of really high mountains along the road are covered with sand giving the appearance of snow. Continual deposits of sand on the slopes finally reach such a depth and weight that the whole mass begins to flow like water downhill; the road becomes blocked, and snow-ploughs and tractors must be used to keep it open. In the more level country sand dunes march across the road with slow but sure progression. In some areas, all other means having failed, it is proposed that the road be re-routed inland, away from the sand belt. Along the road near Trujillo are the ruins of ChanChan.

At Lima is an important fork in the Highway system. Running south along the coast is a continuation of the paved road to the border of Chile, 600 miles away; a branch from this runs to Arequipa and up to the plateau, lake Titicaca, and La Paz. But the more exciting road is the Carretera Central starting east from Lima and following the old Inca post road to Cusco and La Paz. We were warned that the road was impassable in the rainy season, but because we had had so far the best of luck we decided to attempt it. For the first 100 miles the road was metalled and in fine condition; fortunately this stretch includes the Anticona pass at 16,200 feet, the highest motor road in the world. Because of the fine engineering the pass is quite simple, with patience, low gear, and plenty of fresh cool water along the way for the complaining motor. The snow-line is about 14,000 feet and the road is kept clear. This is the copper-mining country; near by are the mines of Cerro de Pasco, and at Oroya is one of the world's largest copper smelters. Having reached the plateau the road continues south always at 10,000 feet or more all the way to La Paz, but is really in a valley between the east and west ranges of the Andes. At frequent intervals are Inca ruins; high arched Spanish stone bridges still span the turbulent streams. Our difficulties were landslides, narrow roads and curves, mud, broken edges of the outside of the road, and above all the fatigue of physical exertion in the rarefied air. The landslides were always a problem, often solved only with the help of the road gangs which patrol the

more dangerous areas. There was never any assurance that large boulders and tons of rock would not roll down on us just as we were passing. The track, it could hardly be called a road in many places, was mostly hollowed out of the cliff side and as narrow as possible, with infrequent passing places. Almost constantly we seemed to be clinging to the brink of a precipice without anything to break a fall of a few thousand feet. From time to time we found washed-out bridges and then began the careful drop down the bank of the stream, the quick ford, and the painful climb up the opposite bank. The grades are not excessive, but there is hardly a mile of straight going, and so we carefully crawled along, often in the brilliant sunshine above the clouds. It cannot yet be called a recommended route even in the dry season; but one day when it is completed it will merit the great cost of improvement. We passed those former Inca settlements and strong points, Huancayo, Ayacucho, Andahuailas, Abancay, and came to Cusco, the former capital, with the Inca fortress on the heights overlooking the city, Sacsahuaman, practically as it was.

Again at Cusco we were warned of troubles ahead; although the altitude remained high the country ahead was flatter, with consequently more and deeper mud at least as far south as Puno on the shores of lake Titicaca. To return over the way we had come was unthinkable; what was ahead could not be worse than what we had gone through in the mountains, and the way south was shorter, so we disregarded the advice and pushed on southward towards Bolivia. The reports were exaggerated, but still there was enough mud to make our way difficult and slow. That Inca invention, the spade, came into its own on this stretch. Because of an uncompleted bridge it was our pleasure to drive 10 miles through waterlogged fields to another possible crossing. Anything under 20 miles per hour would lose our traction and at 20 miles an hour zigzagging across a field trying to locate the driest zones is not pleasant. Twilight came to add to our complications, but we splashed through to Juliaca and an inn with plenty of liquor and food. Shortly before Puno we arrived at the shore of Titicaca, and along the shores of the lake the drainage is better and so the road was better most of the way to the border of Bolivia. From the border onward, after leaving the shores of Titicaca, the mud began again, and here we more frequently than not had to leave the road, bounce across a shallow ditch, and take to the fields, to avoid the deep ruts and mud of the road. We were now near the end of our journey along the Carretera Central, and were pleased that we had disregarded the advice of nearly everyone against this route. The weather had been kind all the way—no rain, but only the aftermath of earlier rains. Three weeks we had been under way since leaving Lima, and to have clear weather for that period was something unheard of in the rainy season in this area.

In the brilliant sunshine of mid-afternoon we arrived at La Paz, nearly 12,000 feet up but still in a bowl of a valley with Illimani rising over 20,000 feet; again an old city with colonial architecture on one hand and most modern architecture in the new buildings just across the street or alongside; with barefoot Indians in bright red and green, threading their way through the noisy traffic; traffic lights, modern shops, motor repair shops, good food, comfortable quarters, and a most favourable rate of exchange. So far our

only car troubles had been with tyres; we had worn out one set in about 5000 miles.

Instead of retracing our path to Puno the way we had come we cut round the east side of Titicaca and at a narrow part of the lake we ferried across on a small sail-boat with a very large sail. From Puno we took the road to the west and Arequipa on our way back to the Pacific Coast. We found the road in excellent shape and made good time despite another 15,000-foot pass and several a little lower. Low hanging clouds and some fog made the mountain driving frightening, but the road was wider, we were going mostly downhill, and the tension was relaxed. For nearly a month we had been in the mountains at 10,000 feet, and it was a relief when we could breathe again without gasping. Because the weather had been kind we had slept in the open in our bed-sacks, prepared our own food, and been independent of the primitive accommodations of the highlands.

At the border of Chile we entered at once a desert of the most fearsome kind, with no known rainfall, and the source of the saltpetre: an undulating country cut by the ravines of rivers, with no vegetation except along the estuaries, and no inhabitants except in rare villages on the sea and at the mouths of rivers. Nitrate plants long abandoned added to the desolation; we might have been on the moon. From the border to Santiago is some 1400 miles of sand, desert, and loneliness. The road is unbelievably rough; the soil would make a hard surface if it was scraped and rolled, but because this is a distressed area nothing is being done; and there is practically no traffic. For the greater part of the way there were broad corrugations across the road spaced exactly equidistant, uniformly about 8 inches high, and keeping their rotundity because of the hard ground. Driving slowly was like dropping into a succession of pot-holes; after trying all speeds we found that 30 miles an hour was the proper speed of synchronization, but this speed was always unpleasant and did great damage to the car. All our mechanical troubles were in this area: broken springs, unstuck steering link, worn-through brake rods, all due to metal fatigue. Roadside repairs kept us going, but we drove over 300 miles with a broken main leaf of a rear spring which fortunately had broken in two places and at the same distance from the centre. Later, when we were fortunately only 12 miles from a repair shop having on hand the parts we needed, our rear axle and shaft gave way. To add to our general unpleasantness we raised great clouds of alkaline dust of the finest texture which found its way into the car and then into us. We had been warned, so we carried with us great quantities of water, petrol, food, and even firewood. But the quiet nights on the desert somehow made up for the struggle of the day from sunup to sundown. At one point of our painful passage we came into an area of dust-spouts, like water-spouts at sea; about 30 feet in diameter at the base, they rose to certainly 100 feet until they fanned out into the upper air. For three hours or more we dodged sand-spouts. On the other side of the world in Persia I had encountered almost the same type of road corrugations but smaller, with a synchronized speed there of 40 miles an hour, and there also sand-spouts. Crossing deep and wide ravines added many miles to our journey. The ravines were sometimes 5 to 10 miles wide with bluffs too steep to descend, so we would have to travel up the

ravine or valley in a descending serpentine for sometimes as much as 20 mile make the crossing of the river, and then by more serpentines gradually mak our way up the bluff to a point exactly opposite to where we had started t descend, 50 miles instead of 10. Our average distance, working for all th was in us, was only about 100 miles per day of twelve driving hours. A length the beautiful beach resort of Viña del Mar was reached, then Va paraiso and an asphalt road leading the 100 miles to Santiago, which we vote the finest of cities. Major repairs to the abused car were necessary and th passengers also required attention for a pleasant week.

Here we had to make a serious decision: to go direct to Buenos Aires or g south in an attempt to reach the Straits of Magellan and the city of Magellan (Punta Arenas). We compromised by taking the trip up to and over th pass of Cristo Redentor and then returned to Santiago. The Christ of th Andes was our last real pass; although it is much used it is nevertheless diff cult with its 12,000 feet and very narrow hairpins and steep gradients. But o is allowed to use the railway tunnel at the top and avoid the last 1500 feet climb. It is closed by snow for six or seven months in the year.

The road south from Santiago was much better than the desert route the north, moderately well paved, passing through rich pastoral land, wi luscious grapes and cool white wine. In this peaceful land as we were o night preparing camp we were startled by a visit of three young ladies spea ing French, who told us their aunt down the road would like to have us vi her: a pianist who entertained us for hours with the music of Chopin. Anoth time a Frenchman and his wife from Lyons, who had spent thirty ye collecting the silver craftsmanship of the Araucanian Indians, insisted on o doing him the honour of seeing his collection.

At Temuco, at about 38° S., we turned east towards the Chilean lakes a our final assault of the Andes. The Chileans have made progress in provid a lower pass open all the year. In the Chilean lake district our camps at nig and the fine fresh trout cooked over a wood fire brought contentment. T Troman pass on the Chilean side is easy and low; the car must be ferr across Troma lake, 5 miles wide, on the border, and on the Argentine si there is no road. There is however a space of about 100 yards between sin wire fences, and somewhere in between your way must be made through t boulder-strewn field. Later on we came to a Hacienda and were allowed use the private road, a fair track nearly 50 miles long through the property the ranch owner, and so to Bariloche in the National Park of Argentina, the northern border of Patagonia. From this point there is a fair road Buenos Aires a matter of three days away, but we still wanted to go sou It was late autumn and the chill of winter was in the air. We were told should find only trails to the south across the pampas where there were villages nor inhabitants nor help of any kind. We struck south along the fo hills of the eastern Andes in longitude 72° W., part of the way on tra but mostly across the level pampas. The going was rough, but we were a to keep right side up and make from 100 to 200 miles during daylight. found few villages, but almost as we needed it would come to an inn in middle of nowhere. We had hoped to continue on this so-called route the way to the Strait, but at about 48° S., in the valley of the Rio Chico,

Crossing the Rio Sullana, Peru

Beside lake Titicaca, Bolivia

The road in flooded Uruguay

The pampas of Patagonia

autumn rains had made the area impassable without the gravest risks, so we struck off to the south-east across the limitless pampas, flat without vegetation except scrub grass and stunted bushes, and the horizon is like the horizon at sea. Day and night there is the never-ceasing wind from the snow peaks to the west; it velocity must be about 30 miles per hour, because when the wind is behind the car and the speed of the car is 30 the motor promptly boils and can as promptly be cooled by facing the car into the wind. At San Julián we came to the Atlantic, and from here over fair gravel roads we continued south along the coast to the Strait and then along the shore of the Strait to the city of Punta Arenas (Magellanes), the southernmost city of the world, at 53° S. On New Year's Day we had left La Guaira and on Easter Sunday we rolled into Punta Arenas with the feeling of having done something. Winter had already set in and a further excursion to Tierra del Fuego, just across the Strait, had to be given up. From Punta Arenas we retraced our way to San Julián and along the coast for the 2000 miles to Buenos Aires: the same sort of country as the west route we had come over, a sheep country and nothing else.

The inn or *boliche* is an institution special to Patagonia. Along the main routes and rails they have sprung up at intervals of about 200 miles: usually low concrete-block buildings bare of surrounding trees and exposed to the bitter wind of the pampas, a combination of general store, bar, and dining-room. The boliches are usually family affairs with the wife doing the cooking and the man everything else. The food was excellent, the red wine of the northern provinces served from a barrel and without limit. There were always three or four small sleeping rooms, clean but cold. In the morning before sunrise the overnight guests assemble in the kitchen before the stove for their before-breakfast maté, drunk from a gourd. Our motor fuel problem was simple in Patagonia; each boliche supplies petrol either from a pump or from tins. Only mutton is native; all other supplies are brought in by lorry or by high-wheeled carts drawn by six to ten horses. The boliches weaned us away from sleeping out in the cold and wind and we blessed them on our way.

We were overwhelmed with kindness in Patagonia; gauchos would take a leg of mutton from under their saddle-bag as a gift for our dinner, invite us to join them in their camps, go miles out of their way to make sure we did not miss a change in our course.

Patagonia is on a vastly enlarged scale something like the extreme north of Scotland but flatter; the very bleakness of it, the great distances, the cold and wind, the vivid sunrises and sunsets, the bright close stars, and the absence of trees and people, the guanaco in herds, shy and elusive, the wild ostriches, the thousands of black-and-white large wild geese wherever there was a little open water, give it a lure difficult to describe.

The colonies of pure Welshmen, the Scottish sheep herders, the gauchos and their superb horsemanship, the absence of visible women, the petroleum wells in the middle of nowhere, the never ending fences enclosing properties sometimes more than 100 miles long, the never ending struggle against drought and cold in the bleak country are Patagonia. Regretfully we left this country behind us and entered the more settled cattle and wheat country

around Bahía Blanca, then north along the coast, through the sort of out-of-place luxurious beach resort of Mar del Plata, and finally to Buenos Aires and civilization again in large doses.

We had intended to finish our journey here, but the car was still in good condition, so we crossed the Plata by ferry and found a concrete road waiting on the other side to help us to Montevideo and beyond to 50 miles from the border of Brazil. In Uruguay we found the best road and later the worst conditions of the trip. After we had left the concrete road there was a wooden bridge with loose boards over a swollen river; it was knee deep under water, with mud waiting on the other side. We used chains and thick rope wrapped around the tyres, but our only hope in such deep mud was speed, and to dodge the worst places was not easy, for we only had 9 inches clearance under the car. One day, from dawn to dusk, we covered exactly 420 yards, and to do that had to jack up the car fifty-eight times. At another flooded bridge water came into the car, but our motor with the fan belt removed and carefully swathed in towels never faltered. It took six days to cover 50 miles, but at length we reached the border of Brazil, and because of floods in the interior we decided to drive on the beach. The driver of a bus kindly explained the technique of keeping one driving wheel in the wet sand but not to let the wave hit you full and kill the motor, or the next wave would wash the sand out from under you and you would lose your car. Thirty-eight cars have already been buried along the beach. It sounded simple enough. By following the wave up as it rolled in and then following it down as it rolled out we were able to keep at least one of the wheels in the wet sand and so had traction. Our track was scalloped but we were able to keep up a speed of 30 miles an hour, always on the look-out for a higher wave. If the beach was flat the drive would be great sport, but across the beach are streams from the land side; as the waves rush in they cut away the bank and that is exactly the time to try and cross the stream to save bumping the bank. Also there are mounds of sand in most unexpected places, called mattresses by the natives, and springs break if these are hit at 30 miles an hour. For 200 miles it was touch and go along that uninhabited beach.

At Rio Grande do Sul we had intended to continue along the beach for another 250 miles, but discovered that no vehicle had passed for more than a month because the flooded rivers had broken across, some 6 feet deep and miles across. The lighthouse keepers along the way had been living on iron rations and food dropped from parachutes. Reluctantly we had to load the car on a boat bound for Santos 500 miles to the north. At Santos we climbed the moderate heights to São Paulo and then south over a rather bad dirt road we had intended to cover coming from the south. After about 300 miles of fair going we were again turned back by flooded roads and mud, and so we retraced our way to São Paulo. On 15 May 1942 we arrived at Rio de Janeiro and found it worthy of its advertisements. Four and a half months of driving under all conditions for some 13,600 miles had brought us to the end of the first trip by motor car around the rim of South America. Modestly we hope that we have shown how much has been done and how much those South American Republics deserve for the already magnificent work they have accomplished towards making the Pan-American Highway a fact.

Note on the Pan-American Highway Project

The proposal which later grew into the idea of a Pan-American Highway was for a railway to connect North with South America. In 1880 David Davis introduced in the Congress of the United States a resolution to authorize the President to invite Mexico, Central, and South America to study the feasibility of a railway to connect all these States. In 1889 a commission of engineers was appointed to study that year in Washington the problem of a Pan-American Railway. In 1920 the second Pan-American Financial Congress, by what seemed like an after-thought, recommended that highways and roads should be constructed in connection with the Pan-American Railway.

The fifth International Conference of American States at its meeting in Santiago, Chile, in 1923, resolved to study measures best adapted for the construction of automobile highways within and between those states. This can be considered the birth of the idea of a Pan-American Highway, the entry of the Pan-American Union on the scene, and its official approval. Engineers from nineteen of the Latin-American Republics met in 1924 in Washington, under the auspices of the Pan-American Union, to study road construction in the United States and to discuss the problem of the Pan-American Highway. The first Pan-American Congress of Roads was constituted and met in 1925 in Buenos Aires. From this time onwards regular meetings were held and much local work was carried out in all countries. Extensive surveys were undertaken by the local governments as well as by the United States Bureau of Public Roads, particularly in Central America.

The Alaska Highway and its connections to the south are outside the scope of the present paper. There are two main roads to Mexico. From Washington a wide concrete road runs via St. Louis, Fort Worth, and San Antonio, Texas to the border of Mexico at Laredo, and continues south through the mountains 750 miles to Mexico City; it was opened in 1936, is concrete for the entire distance with all bridges of substantial construction, and it has been for Mexico a most profitable investment.

From Vancouver south along the Pacific Coast to San Francisco, Los Angeles, and San Diego in California to Phoenix Arizona to the border of Mexico at Nogales is 2100 miles of concrete roadway. From Nogales to the City of Mexico has been partially surveyed and small sections have been built but cannot now be considered as practicable for a motor. One expedition recently broke through and required more than two months to cover the 1500 miles. Some financial help has been secured from the United States, and work is proceeding.

From the City of Mexico for about 80 miles the road is of concrete, but onward to Oaxaca it is gravel and earth for about 400 miles. South of Oaxaca and for much of the way to the border of Guatemala there are oxcart trails only usable during the dry season. The country is in part mountainous and will be a difficult task for the road builders, but the Mexican Government is active, the map of the Pan-American Highway Confederation shows a paved road for 62 miles south of Las Cruces, and it is likely that within four years there will be an all-weather route. The Talisman bridge is already built across the Suchiate into Guatemala.

The 300 odd miles across Guatemala is an all-weather road of gravel and fair surface; it runs about 75 miles inland from the Pacific Coast and along the western slope of the Continental divide at from 3000 to 7500 feet. From the El Salvador border at San Cristobal to the Rio Lempa the road is shown as paved, and as an all-weather road southward to Honduras.

Honduras, only 100 miles wide along the coast, has no all-weather road for the whole distance, but the route can be covered in the dry season at least and without too much difficulty.

The 260 miles across Nicaragua may be considered impassable for cars. It is at each end a trail used for the most part only by ox-carts with high solid wheels that have cut ruts 2 feet deep. The Inter-American Highway Condition Chart shows the central section north and south of Managua as all-weather road, partly paved. The country is low and flat for the most part, and to complete the road will not be difficult.

From the border of Costa Rica to the capital, San José, about 200 miles, there is a partly all-weather and partly earth road negotiable in the dry season. On either side of the capital there are paved roads, but after that to the border of Panama, another 200 miles, is a wilderness of mountains, torrential rivers, and jungles difficult even for a *burro*. This section will be extremely difficult and costly to build.

Between the border and the city of David in Panama is a gap of about 60 miles which will be taken in hand as soon as the location of the road through Costa Rica is determined. The balance of the way through Panama on to the Canal, a distance of 360 miles, is a well-maintained all-weather road. From the Canal Zone towards South America there is a road for only about 30 miles to Chepó and then the barrier of the jungle, with not even trails, but with war-like tribes who have shown every disposition to oppose any opening up of the territory.

The Condition Chart corrected to 1 *September* 1941 *showed that of the* 3255 *miles from the U.S. border to the Canal* 1313 *miles were paved,* 737 *all-weather roads,* 495 *dry-weather roads, and* 710 *trails. The* 224 *miles from the Canal to the Colombian border were "under study." Circulars of the U.S. Public Roads Administration dated* 29 *November* 1941 *and December* 1941 *give details of work in hand to improve these figures, and of certain alternative routes suggested to avoid competition with railways. The voluminous, heavily illustrated report of the Bureau of Public Roads, published in* 1934, *describes the Air Survey of the above route, from the southern border of Mexico to Panama, made in* 1932–33 *by the Air Force of the U.S. Army, with studies of the historical, economic, and technical considerations for each State of Central America. All these papers and charts may be studied in the Map Room of the Society.*—Ed. *G.J.*

NOTES ON THE HIGH COMMISSION TERRITORIES OF SOUTH AFRICA

Communicated by a Correspondent in South Africa

THE three territories in Southern Africa which are not part of the Union: Basutoland, the Bechuanaland Protectorate, and Swaziland, are administered, under general direction and control from the Dominions Office in London, by a High Commissioner appointed by His Majesty. The High Commissioner also holds the office of High Commissioner for the United Kingdom in the Union of South Africa. The High Commissioner is the sole legislative authority for these territories, and is in much the same position as a Colonial Governor, but responsible to the Secretary of State for Dominion Affairs. The day to day government of the territories under the High Commissioner is conducted by three Resident Commissioners. The territories are generally referred to for convenience as the High Commission Territories in South Africa.

Basutoland

The Basuto, who have the status of full British-born subjects, are racially the remnants of a number of different tribes who were welded into a nation by Moshesh, one of the most remarkable warrior figures in African history and the *de facto* ruler of Basutoland from 1820 to 1868. By mounting his warriors on hill ponies and conducting skilful guerilla warfare in the mountains, he withstood all that long period of warfare initiated by Chaka of the Zulus. Moshesh carried on wars particularly with the Orange Free State and also with the Boers as they trekked north, until he finally applied for himself and his people to be placed under the protection of Queen Victoria, who accepted this trust and duty.

Basutoland is a small country, densely populated, containing some 650,000 natives and a few Europeans in an area of 12,000 square miles. It is described as the Switzerland of Africa, the lowest part being 5000 feet above sea-level. The people are among the most individualistic of all African natives. They are a race of peasant cultivators, each family having its recognized holding of arable land and customary rights to graze stock either near its home or in the open grasslands of the high mountains. The average Basuto is of light build, but withal muscular and capable of heavy sustained manual work. His basic food is maize porridge, supplemented by vegetables, milk, and meat. The older men often live almost entirely on kaffir beer, a thick beverage made from millet, which is at the same time food and drink. The Basuto produce not only their own food but also a considerable quantity of wheat of good quality for export. The wheat is constantly being improved by the introduction of Canadian hard varieties and by proper treatment and grading. The quality and quantity of the Basuto wool clip have also steadily risen, while the Government has improved the breed of sheep, cattle, and horses by introducing good stock, chiefly from the Union.

Since the outbreak of war the natives have responded to Government encouragement by ploughing all the arable land available, and every endeavour

is being made to increase the yields per acre. In 1941 over a million bags of maize were produced and there were yields of kaffir corn, peas, and other crops on a somewhat smaller scale. The export of wheat in 1941 was the highest for many years past: more than half of the country's production of 395,000 bags was exported. Campaigns to encourage the people to grow vegetables and fruit in correctly terraced gardens are in full swing. Many thousands of such gardens are now producing food, and this has brought about a notable improvement in the health of the people. During 1941 more than eighteen thousand fruit trees were planted in these gardens. Surplus food is exported to the Union, and so helps to feed the people of South Africa. As a large number of Basuto men are in uniform or working on the Rand gold mines, ploughing and cultivation is now done by the older men, the women, and the children.

The rains fall in a series of heavy thunderstorms from October to February. In such a steep country of alternate drought and storm the problem of soil erosion is ever present, but in the last seven years, thanks to the leadership and authority of the Native Chiefs under European technical guidance, this problem is no longer as dangerous as it was. As a result of continuous cultivation, coupled with overgrazing and the removal of crop residues, the humus content of the soil had been seriously depleted and severe erosion resulted. The anti-erosion measures now practised include contour terracing, the building of dams, control of grazing, and re-afforestation, the last providing fresh supplies of timber and fuel for the people. Most of the arable lands are now "contour ridged" and are ploughed along, and not across, the contours. These ridges serve the double purpose of retaining rain and preventing the usual rush of water that carries away the soil. In the lowlands terracing is done by tractors, while in the more mountainous parts grass strips are planted on the contours.

The Basuto are passionately loyal to the British Crown and to their own Paramount Chief. The present native ruler of Basutoland is a woman, Ma'Ntsebo, widow of Paramount Chief Griffith Lerotholi. She is Regent with the full powers of Paramount Chief, for a small boy who will succeed when he reaches man's age. Ma'Ntsebo, mother of 'Ntsebo, is a cheerful rather stout African lady with a strong sense of humour and no small capacity for public affairs. Under her there is an Advisory Council of Chiefs and educated Africans, with even a woman councillor. There are numerous district chiefs who have limited jurisdiction. Each district chief has his own law court for the trial of civil cases and all the smaller criminal offences. From these courts there is right of appeal to the Paramount Chief's Court, and thence to the British District Commissioner's Courts and to the High Court, the latter presided over by a British judge sitting with other Europeans and with Native assessors. Basutoland is an example of British methods of Indirect Rule, the European officials guiding and supervizing, but governing through the approved Native authority as constituted by native law and custom.

The Basuto make great efforts and sacrifices to get education. The percentage of their children at school is larger than anywhere else in Africa, and the administration spends about a fifth of the country's revenue on education.

The teachers are nearly all Africans, trained in mission colleges. No fees are charged in elementary or intermediate schools, nor is attendance compulsory, though it is remarkably regular. In addition to the Government-aided mission schools there are several intermediate schools and a Government High School at which scholars may go as far as the Matriculation examination. Every year there are a number of bursaries from Basutoland to Fort Hare, the University College for non-Europeans (affiliated to the University of South Africa) where natives can get a University degree.

Basutoland also has a Government Technical School where useful crafts are taught. Basuto potters have made a name for themselves and it is difficult to believe that their clay pots, attractively coloured and polished with a smooth stone, or perhaps an animal's tooth, are all made freehand, without the aid of a potter's wheel. Basuto craftsmen are also adept at grass and reed work, specializing in handsomely woven grass sun hats.

Because of Basutoland's cool climate the natives escape diseases such as malaria and hookworm. Typhus fever and bubonic plague are kept in check by energetic measures, in which the Basuto cooperate willingly. Typhus first appeared in Basutoland twenty years ago and spread from village to village, until in 1934 it had become a serious epidemic in which thousands of lives were lost. Portable deverminizing outfits, transported often over precipitous mountain tracks, have helped to free the people of lice, with the result that there was not a single case of typhus in 1940. There were limited epidemics of bubonic plague in Basutoland in 1936 and again in 1942, but these were checked by wholesale war on veld rodents. The entire population of villages turn out and, advancing in line, drop poisoned grain, supplied by the Government, into rat holes. In a single day the people of an average-sized village will thus exterminate all the rodents in 12 square miles of land.

Lepers are treated at an institution where the patients learn handicrafts, keep hens, and enjoy social life, entertainments, and concerts. The natives have now learned to seek treatment while the disease is still in the early stage, and in consequence the number of discharges each year is high.

The influence of the witchdoctor is declining in Basutoland. These medicine men plied a lucrative trade, for a patient would have to hand over a sheep (worth 10 shillings) before the witchdoctor threw the divining bones: a second sheep would be required before the doctor opened his bag of medicinal powders and ointments. If the patient was cured the fee would be an ox or a cow. To-day the Basuto have learned to trust the medical officers and hospital staffs. The people are medically minded, and will travel long distances on horseback to receive treatment as out-patients for minor complaints.

During this war the Basuto have already sent many thousands of men to the Middle East in the Basutoland Companies of the African Auxiliary Pioneer Corps. These men are all armed on similar lines to the United Kingdom Pioneer Corps, and are very good shots with a rifle. Being robust and hardy they have stood even a Syrian winter well and cheerfully. The whole nation is proud of their contribution to the Empire's war effort. The recruits take a real delight in learning to drill, and have been known to send respectful letters to their officers in Mess "to please turn out in the evening, to give us

more drill." Hundreds of them have been found drilling in the dark, under instructors of their own choice.

The Bechuanaland Protectorate

Most of the people of the Protectorate, of whom there are just over a quarter of a million, live within 50 miles of the single railway which traverses the eastern part of the Protectorate and is the only railway link between Rhodesia and the Union of South Africa. They belong mainly to the Suto-Chuana group of the Bantu peoples and comprise several tribes, of whom the Bamangwato are the largest and wealthiest. For many years this tribe was ruled by Khama, one of the outstanding African leaders of his time. He was a devoted follower of the London Missionary Society.

Khama gave a monopoly of missionary endeavour to this denomination. The present leader of the tribe is the Regent Tshekedi, Khama's youngest son, who acts as Regent for his elder brother's son, now an undergraduate at Fort Hare. Tshekedi, like his father, is a remarkable personality and has exceptional intellectual ability. His capital is Serowe, the largest purely native town in Africa south of the Equator, with over 30,000 inhabitants. Tshekedi has his own African lady typist and stenographer who can take shorthand in both English and Tswana.

Another tribe, the Bangwaketsi, under their enlightened Chief, Bathoen, have their capital at Kanye, with 15,000 inhabitants. Mochudi, which has 8500 people, is the capital of the Bakgatla: they have had a succession of strong, intelligent rulers, and are probably the most progressive tribe in the Protectorate. Smaller tribes are the Bakwena and the Batawana.

In one respect the Bechuana are more advanced even than the Basuto, for in addition to a similar range of integrated law courts of their own they have Native Treasuries. The revenue for these treasuries is derived from a share of the poll tax and hut tax, court fines, and customary dues. Chiefs and native officials now have fixed salaries paid out of these Native Treasuries. Further than this they undertake responsibility for the administration of certain public services, the most notable of which is education. The schools in the Bechuana-land Protectorate are in fact Native Administration Schools. These schools are now crowded—this is uncommon in Africa—with more girl pupils than boys. The latter are usually away at their cattle posts.

About 237,000 natives live in eight tribal reserves under the rule of their eight Chiefs. The area of these reserves is 100,000 square miles. But most of the desert (about 165,000 square miles) is Crown land. This vast area has only 17,000 inhabitants most of whom are Bushmen, nomad hunters who are food gatherers rather than food producers, and differ in race from the Bantu tribes. Some 7500 square miles are European-owned in blocks along the Transvaal border, but these areas contain less than 10,000 people of all races. The Bechuana are essentially a pastoral people, and their whole life and economy is bound up with their cattle, which find a market in Johannesburg, Bulawayo, and the Copper Belt of Northern Rhodesia.

The power and authority of the chief and his district representatives is very great, extending to the allocation of dwelling sites, land, grazing, cattle posts, and almost every aspect of tribal life. Government by and through the Chiefs

is therefore essential. Indirect Rule on the Nigerian and Tanganyika Territory model is already more developed than in the other two High Commission Territories.

The Bechuana are an intensely conservative tribal society. Any change of any kind is a slow process: no chief can do anything without long debate in *Kgotla*. Any taxpayer has a right to be heard in *Kgotla*, and long days are spent in discussing the pros and cons of even the smallest change. Each tribe has its own immemorial lore of custom, the product of centuries of trial and error handed down orally from generation to generation in a tribal society where status and obligation count for more than anything.

The Bechuanaland Protectorate must always be a poor country economically, incapable of supporting any large population. There must always be a constant fight against famine. But, like the Basuto, the Bechuana are a cheery, stout-hearted folk. This sun-drenched, difficult country, with its dust and drought, its lovely nights and magical growth of flowers and shrubs after rain, has bred self-reliant, independent people. At the outbreak of the war all the Chiefs expressed their allegiance to the King and offered the services of themselves and their people, and before long several thousand men had been recruited and trained for the African Auxiliary Pioneer Corps—this despite the fact that 15,000 or 20,000 young men were away in the Union, working in the gold mines or in other undertakings.

The natives imposed on themselves a War Levy, assessed on the individual's capacity to pay and designed to bring in £20,000 a year. They increased their cultivation and built granaries to conserve food and so aid the war effort. The women took up knitting, and it is no uncommon sight to see women and girls in the villages knitting as they walk, though the finished article may not always serve the purpose for which it was designed.

Swaziland

Swaziland is slightly smaller than Basutoland but has only some 170,000 Swazis and 2000–3000 Europeans compared with the 650,000 natives of Basutoland. The country consists of a steep shelf sloping from the edge of the high veld on its western border down to a few hundred feet above sea-level on its eastern frontier. Below 2000 feet there is tropical bush country.

Only on rare occasions has Swaziland been able to pay its way; for balancing its very small budget it depends on yearly grants-in-aid from the United Kingdom taxpayer. Development has therefore been slow, more especially as much of the European-owned land is held by absentee landlords. Arable agriculture has made little progress in Swaziland, which relies on imports from the Union of South Africa for essential food supplies. The chief wealth of the country is in its cattle herds: to the Swazi, cattle are bank balance, currency, and status. In former times cattle diseases such as East Coast Fever seriously depleted the herds, but British veterinary control has worked wonders in eradicating pests. When a creamery was established recently at Bremersdorp the Swazi readily seized the opportunity of selling their cream; this has now become a flourishing industry. But apart from dairy farming the Swazi rarely take any interest in peasant husbandry. Conservative tribal

restrictions and the large proportion of backward chiefs are a barrier to progress.

Education makes slow progress. The more promising pupils from the small mission schools in the bushveld can go on to the central aided schools. Many children attend classes of their own accord, with little or no encouragement from their parents.

The native courts are at present limited in their jurisdiction to purely civil cases between natives, but as they are unregulated and uncontrolled and not yet an integral part of the British judicial administration, and as they keep no written records, it is very difficult to say much about them. Swaziland is not strictly an example of Indirect Rule, but rather of two parallel administrations, European and native, the latter still claiming independent jurisdiction.

When after the South African War the British took over the responsibility of administering what had been a dependency of the Transvaal Republic, the land and rights of the Swazi had been recklessly alienated to adventurers by Paramount Chief Mbandine and his Council in return for payments to the Chief individually, before there was any effective European governmental control or administration. Chief Mbandine was Africa's champion concession peddler: when he had sold every conceivable concession to all comers he wound up by giving a concession for the right of selling any further concessions that might have been overlooked! The reign of Mbandine is one of those sad, bad stories which leave a legacy of difficulty and distrust long afterwards. Under a proclamation issued by Lord Selborne in 1907 however a third of every land and grazing concession was demarcated for the exclusive use of the natives of Swaziland, the remaining two-thirds (apart from a small area vested in the Crown) being awarded to Europeans. There is a small community of English and Afrikaans-speaking settlers on alienated land in Swaziland. Transvaal sheep farmers living over the border have long-established winter grazing rights for their flocks on the uplands of Swaziland.

The lowlands of Swaziland abound in wild game: kudu, wildebeest, impala, zebra, and game birds of different kinds. In the rivers crocodile and an occasional hippo are encountered. Hot sulphur springs of recognized medicinal value are an attraction in several localities for holiday campers escaping the frosty highveld winters.

There is an important and well-managed asbestos mine in Swaziland and some alluvial tin is panned by primitive methods in upland streams. Deposits of coal and iron ore have been proved, but not developed, and there are probably more extensive occurrences of tin in the lower river valleys, which are liable to heavy floods in summer time. A geological survey of Swaziland is at present in process. The territory may yet see considerable mineral development; to-day it is still an economic backwater.

A not inconsiderable part of Swaziland's small European population have joined the South African and United Kingdom armed forces. The Swazi themselves are giving loyal service in the African Auxiliary Pioneer Corps: and of the several thousand recruits to this Corps, the great majority have already gone on service to the Middle East.

THE KINGDOM OF NUPE, NIGERIA

A BLACK BYZANTIUM: the Kingdom of Nupe in Nigeria. By S. F. NADEL. (International Institute of African Languages and Cultures.) *Oxford: University Press*, 1942. $8\frac{1}{2} \times 5\frac{1}{2}$ *inches;* xvi+420 *pages; illustrations and maps.* 25*s*

THIS valuable book owes its genesis to a generous sum placed by the Rockefeller Foundation at the disposal of the International Institute for the Study of African Languages and Cultures for researches into the social organization and problems of African peoples.

Dr. Nadel, of Vienna, who was appointed to one of its first fellowships, elected to study the Nupe of Northern Nigeria, and the fruits of his investigation are given in this present work, which will be studied with profit by all those interested in African sociology, though the author's claim that the Nupe organization is in its social and economic complexity only comparable with the civilization of Imperial Rome, of Byzantium, and Mediaeval Europe, might be considered somewhat exaggerated.

For the first five months the author employed the Hausa language, which is a sort of *lingua franca* and widely understood in Northern Nigeria and much of the central Sudan, but after that he became fluent in Nupe.

The Nupe inhabit a low-lying, undulating country in the north-west of Nigeria, irrigated by the Niger and its tributary the Kaduna, which make much of the land a large marsh in the rainy season. The heat and humidity of the climate exercise a bad influence on the health of the people, who suffer greatly from sleeping sickness, malaria, rheumatism, and lung troubles. The population of some half a million are composed of eleven or twelve sub-tribes, of whom perhaps only five are descended from the original tribal ancestors, while the rest are derived from various immigrant bodies, which have gradually been Nupe-ized in the course of years. As to how far their present cultural homogeneity extends to their physical type, there is not sufficient evidence to say, but if the fifteen specimens measured by me are at all representative, they belong to a rather aberrant section of the Yoruba–Hausa–(present day) Fulani–Kanuri ethnic group, which constitutes the greatest negro people in the world, whether from the point of view of numbers, influence, or culture.

As usual, the extended family is the basis of the Nupe social structure, and kinship (*Dengi*), though used generally in the widest sense, applies ordinarily only to those living in the same compound (*Katamba*) or quarter (*Efu*), or to those who have only recently split off by marriage or removal to another region. As a rule descent is only traced back for two or three generations, save in the families of chiefs, where their ancestors are known for some ten or more. Though kinship membership, together with religious and economic rights, is transmitted through the father, matrilineal connections are also highly prized.

The Nupe generally lived in large walled villages, no doubt for the purpose of defence in war, though smaller settlements extended to the boundaries of their land. Despite the large number of communities of this tribe scattered outside the state and of traders plying up and down the Niger and Benue in their long, comfortable, straight-sided canoes, the ordinary village is self-contained and the inhabitants very parochially minded, many of them never having visited places only a score of miles away. The town or village is ruled by its chief and his council of elders, who are the heads of the various compounds; both ranks are usually hereditary, or semi-hereditary, as are the priests, who are the masters of ritual and in possession of the insignia of magic.

In many respects the adoption of new governmental duties is proceeding smoothly and efficiently, but the chiefs' power and influence are sometimes diminished by their having to introduce and impose foreign laws and regulations. Another source of disturbance lies in the adoption of Muhammadanism by most of the chiefs in advance of their people and their consequent inability to organize the traditional religious ceremonies.

The culture hero of the tribe is Tsoede, who probably lived in the fifteenth century and is said to have delivered the Nupe from the domination of Idah, lower down the Niger, which at the time was part of the ancient Bini empire. Dr. Nadel sees proof of this connection in the bronze figures and bells cast on the *cire perdue* process, a technique which he says is otherwise unknown in the country. It is now generally believed however that this art was known prior to the coming of the Portuguese and was introduced from the East. It is possible that the practice had long existed in Nupe land.

The Fulani, who conquered the country in the early nineteenth century, were completely absorbed in the mass of the population. My own measurements prove that those who claim to be of Fulani blood differ, as a rule, in no respect physically from the Hausa. They still however possess a certain prestige, by which their social position is buttressed. After the Fulani rise to power the king, Etsu Nupe, instead of being the first son born in the purple, is to-day elected in turn from three royal families, descendants of the conqueror Mallam Dendo. Every king uses the period of his reign to increase to the utmost the wealth and prestige of his house. The only balance of power lies in the rigid system of succession—a precarious state of affairs which results in rivalries and feuds.

The state possesses a "system of social gradation of remarkable thoroughness." There is an exclusiveness and even snobbishness, which depends not only on rank but increasingly on wealth. There are scores of classes, differentiated by the food they eat, their fashion of salutation and behaviour, forms of recreation, style of address, and the symbols permitted to them, such as the right to have a sword borne before them. Admission to higher classes however is strictly limited and can only be obtained step by step, chiefly through prowess in battle, wealth, or personal service to the chiefs. Nowadays even the class consciousness of the peasantry and of the artisans' guilds is permeated with a desire to rise in the social scale.

Conversion to Muhammadanism has not altered the state of affairs very deeply, except perhaps in that this has been the means of introducing, between the various classes, a sort of intelligentsia in the mallams. The kingship, which had lost much of its semi-sacred influence through its divorcement from its link with magic, myth, ritual rites, tabus, and the sacred emblems, developed into a rule of the strongest and a balance of power and, finally, into the system of succession in the three royal clans. It has however again gradually attracted to itself a sort of religious sanction and myth, which crystallized round the figure of Mallam Dendo and has become incorporated in the state, even though the majority of the people are still pagans. The rulers have even brought under their control the ancient secret anti-witchcraft society, which still possesses much influence and brings in considerable profits.

The women also are enclosed in the framework of official grades, though the three principal ranks of pre-Fulani days have now been reduced to two, which are conferred on the members of the three royal clans. Other appointments comprise the Sonya, who supervises the market and the work of the women, and the Sagi, who is the head-woman of the village or town, elected by the married women and confirmed by the chief. The latter title is deemed the

modern equivalent of the ancient Lelu, who was believed to be the most powerful witch in the place, and who was appointed mainly to check the activities of the other witches.

As usual in West Africa, the position of women is high and even those who marry beneath them can raise their spouses to their own status, while children invariably assume the higher position, rather surprisingly in a society which is, for the most part, patrilineal.

The sex morality of the women is said to be low, especially in Bida the capital, chiefly because of polygamy, which restricts the number of wives available. Semi-professional prostitution is common, particularly among the women traders and those who are barren and whose marriage has failed and who are exempt therefore from the ordinary standards of morality. Divorce is rare however, since poor men cannot afford to forfeit part of the bride price, while others depend economically on the trading profits of their wives and men of rank would suffer loss of prestige.

After discussing the methods of administration in modern Nupe, Dr. Nadel gives a very full account of the economics, especially agriculture and the various industries, in which the craft-guilds play a leading part. The most important of these latter are the black-, brass-, and silver-smiths, while the most interesting perhaps are those of glass-making and bead-work. Though the glass-workers for the most part make use of European bottles, there are still those who can make their own type of glass, which is black and of a rather crude texture, and the technique of which is kept a secret and is said to have been introduced by immigrants from the East in far-off times. The bead-workers, whose principal employment was to refine the crude or plain beads brought in by Hausa or Arab traders, are now fast disappearing, unable to make way against the cheaper and more attractive European beads.

The book gives a very full and, as far as can be judged, accurate account of a type of feudal society, typical of that great part of Nigeria and the Western Sudan, which possesses a culture derived principally from the East and one rather similar to that prevailing there in the early centuries of this era, except that there are practically no written records. In compliance with the chief object of the International Institute, the main contents are sociological, and little attention is paid to magic and religion, which some anthropologists find of so great an interest in the more primitive and uncivilized peoples in the southern central and eastern regions, but which, in any case, play a comparatively small part in the more cultured tribes such as the Nupe of this book.

P. AMAURY TALBOT

REVIEWS

EUROPE

ALPINE WAYS. By FRANK S. SMYTHE. *London: A. and C. Black*, 1942. 11×8 *inches;* 106 *pages;* 47 *plates and sketch-map.* 15*s*

It says much for the quantity of Mr. Smythe's photographs that the quality of those selected for this his sixth published collection is in no way inferior to that of their predecessors. Great mountaineer though he be, one of the greatest, Mr. Smythe is not a great photographer when judged by absolute and the highest standards for the composition of his pictures is frequently unsatisfying.

This is because more often than not he poses the chief feature exactly in the centre.

The letter press, usually addressed to the uninitiated, is always worth reading even by the expert and sometimes reaches a very high level of descriptive or thoughtful writing, although the reader must be prepared to be dropped to earth now and then. This unevenness in so much of his work debars Mr. Smythe from the company of the famous mountaineer writers to which, by right of accomplishment, he ought to belong.

Yet these pictures of peak and ridge and glacier are either beautiful or intriguing, more particularly to us mountain-starved people of the present day; and they give added pleasure by reason of the intimate and expert descriptions written by a man of such distinguished achievement. G. S.

ASIA

JAVANESE PANORAMA. By Miss H. W. PONDER. *London: Seeley Service*, 1942. $8\frac{1}{2}\times5\frac{1}{2}$ *inches;* 264 *pages; illustrations and sketch-maps.* 21*s*

As Miss Ponder says, Java is an inexhaustible subject; you may live there for years, you may leave and return again, but, for a writer, there will always be fresh material. This book is, in its way, a complementary volume to her 'Javanese pageant,' published in 1934. Here she describes native foods and fashions, *batik*, dyeing, and other crafts, weddings and funerals, religion and magic, trees and gardens, and much else besides. She loves the island and is sympathetic to the people; she does well to explode the popular fallacy of "the lazy native" and she has much that is wise to say on the subject of Eurasians and the liberal attitude of the Dutch towards them, an attitude from which we might well learn something in the future.

Those who love Java too will find many of these pages poignant reading. Much of what Miss Ponder writes in the present tense must now be translated into the past. The swift march of events, and the slowness of war-time book production have precluded any mention of the Japanese occupation, indeed there is little reference to the effect of the war upon the island. In her last chapter however Miss Ponder does admit the possibility of the island being overwhelmed as completely by modern forces of barbarism as it was three centuries ago by the Dutch East India Company, and before then by Indian and Malay conquerors. Yet she maintains, and surely rightly, that whatever wounds the towns and terraced rice-fields may suffer, the soul of the patient and toiling people will survive, as it has survived before. O. R.

MODERN BURMA: a survey of political and economic development. By J. L. CHRISTIAN. Institute of Pacific Relations. *Berkeley: University of California Press*, 1942 (*Cambridge University Press*). 9×6 *inches;* $x+382$ *pages; sketch-map.* 18*s*

The author of this book is an American who from 1927 to 1935 was Principal of the Meiktila Technical School. These were critical years in the political evolution of Burma for separation from India came a little later, on 12 April 1937, and Meiktila is in the Burmese heart of a country whose capital is so largely populated by aliens. The author combines wide reading, accurate observation, and clear understanding with a detached viewpoint and has produced a book which is at once scholarly and readable. It is not a geography, the sketch of the geographical background occupies but a few pages, and the only general criticism is that a fuller treatment of the economic geography is necessary for a proper appreciation of the great possibilities of development, otherwise

there can be nothing but praise for a work which so amply justifies its subtitle. The history of the country is carefully summarized, and the present political and economic development described in detail up to January 1942, just before the tragic loss of the country. In the numerous footnotes and very extensive bibliography it is difficult to find any important source of information which has been overlooked, and the material has been used critically and with care. Altogether this is a work of great value which fills adequately what has hitherto been a serious gap. L. D. S.

AFRICA

SEALED AND DELIVERED: a book on the Abyssinian campaign. By G. L. STEER. *London: Hodder and Stoughton*, 1942. 9×6 *inches; 254 pages; maps.* 18*s*

The author, who as *The Times* Correspondent witnessed the Italian entry into Addis Ababa in May 1936, accompanied the Emperor Haile Selassie on his journey to Khartoum in August 1941. He subsequently acted as Field Propaganda Officer with the British Forces operating in Eritrea and with the mixed Anglo-Sudanese and Patriot groups which conducted a guerrilla offensive in the Gojjam. Mr. Steer naturally has much to say on the political aspects of the Ethiopian campaign and on the technique and effects of the field propaganda as conducted by pamphlet, radio, megaphones in the front line, and rumour, which he was responsible for organizing. In this connection he writes as a specialist and his book should be read by all officers who are likely to find themselves concerned in future guerrilla operations. For if guerrilla war is a process of interior attack on an occupying power carried out by scattered operational groups—weak in numbers and fire-power—whose object is essentially to develop an offensive against the morale of occupying troops, then it is obvious that Field Propaganda is an important function of the guerrilla offensive.

In view of the specialized duties of the author and of the original interest of anything he has to say on his own subject, it would be captious to complain that the book is disappointing to the geographer. Only one chapter is devoted to the operations in Eritrea and another to the guerrilla operations in the Gojjam, the province of the Ethiopian highland to the west of the great loop of the Blue Nile. The Gojjam is essentially "Cheesman country" and it has been described in the classic tradition in 'Lake Tana and the Blue Nile' and in several articles in the *Journal*. It was in fact on the painstaking explorations of the former Vice-Consul at Dangila and on maps prepared from his data that the British Military Mission accompanying the Emperor Haile Selassie based their plans for operations against the Italian garrisons to the west of the Blue Nile (fifty-one battalions compared with the seventy-six which were facing General Platt's army in the Keren positions). The Mission was commanded by Colonel (now Brigadier) Orde Wingate, D.S.O., and the spearhead of the guerrilla offensive was the Frontier Battalion of the Sudan Defence Force under Lieut.-Colonel Hugo Boustead, D.S.O. Both these officers were experienced African travellers and Colonel Boustead was a mountaineer of distinction.

The strength of the guerrilla force operating in the Gojjam never exceeded one battalion of Sudanese and two to three thousand Abyssinian Patriots stiffened by about one hundred British officers and non-commissioned officers, mostly recruited from the Cavalry Division. Marching and attacking most often by night, the guerrillas succeeded, in two months, in dispersing four Italian brigades and in forcing the evacuation of the two strongly defended localities of Burye and Debra Markos. The Italian garrison from Debra Markos

was driven across the Blue Nile up into the Wallo Mountains and finally surrendered with eight thousand prisoners and much material to one Company of Sudanese and two thousand of Ras Kassa's *Shoans* under Colonel Wingate.

The campaign was full of the greatest interest to British personnel who cared for geography, ethnology, or natural history. All supply had to be brought by camel across the relatively waterless Shankalla wilderness, inhabited by the primitive negroid Gumuz. A way up the Escarpment was negotiated without fighting as a result of Cheesman's earlier explorations. Here the guerrillas found themselves in the country of the Agau, the most ancient and least-studied branch of the Ethiopian Kushites. Once on the plateau it proved necessary to continue the use of camels owing to shortage of mules. The altitude, the wet and cold, and lack of thorn grazing, proved fatal to the camels, only fifty-three of whom eventually reached Addis Ababa (under charge of the reviewer). These gallant plain-bred animals probably secured a record for the African species in their passage of the Choke Mountains (nearly 14,000 feet on Italian maps) in blizzards of rain and hail.

The march records of some sections of the Frontier Battalion deserve mention: Umm-Idla, the Escarpment, Burye, Debra Markos, Mota, Bahrdar, Debra Tabor—approximately 600 miles in two months, including numerous actions. The Sudanese of the Frontier Battalion were mostly raw recruits hastily raised and trained and officered by amateurs (civil servants and cotton planters). In the cold and wet of the Ethiopian highlands they carried only one blanket each and few had greatcoats or groundsheets. As Fortescue said of the Magdala expedition, fought over nearby country under similar seasonal conditions, "it was one of the most arduous campaigns ever undertaken by British troops."

AFRICAN DISCOVERY: an anthology of exploration. By MARGERY PERHAM and J. SIMMONS. *London: Faber and Faber*, 1942. $8\frac{1}{2} \times 5\frac{1}{2}$ *inches;* 280 *pages; maps.* 12*s* 6*d*

This anthology has been compiled from the works of the principal British explorers of Africa and covers the period from 1769 to 1873. To give perspective to the narratives they have chosen, the editors have sketched, in two introductory chapters, the geographical and historical background of the discoveries and have added a short biographical note on each explorer. The work is elegantly printed and amply served with route-maps and contemporary drawings, creating the impression of being a pre-war production.

One may regret that such a book should have appeared at the present time, when even many excellent original works cannot find a publisher. Being an anthology, it does not, of course, set out to tell us anything new, or, indeed, anything that is not already available elsewhere in print: nor can it claim to possess any great topical interest, or to proclaim any particular "message." So far as the editors are concerned, the main purpose of the anthology is to "lure the reader into following up the explorers into their own volumes." The extracts chosen as suitable "ground-bait" for this end deal mostly with the dramatic side of the discoveries: thus, such matters as tribal cults, massacres, cannibalism, and the personal privations of the explorers are given special prominence. More than half the forty odd pages devoted to David Livingstone relate to the circumstances of his meeting with Stanley and his subsequent death. As far as the anthology proper is concerned, the emphasis is certainly not on African discovery. Still, if the work (which is full of fine things finely said) succeeds in quickening public interest in African history and culture, it will not have been published in vain.

G. H. T. K.

CENTRAL AND SOUTH AMERICA

LATIN AMERICA. By PRESTON E. JAMES. *New York: Odyssey Press*, 1942. 9×6 *inches;* xviii+908 *pages; illustrations, sketch-maps and end-paper maps.* 26*s*

This work is essentially an advanced text-book of geography; but it is fresh and consistent in aim, content, and method, and should reach a larger public than that provided by university students. It is the work of a well-known geographer who has done field work in widely contrasted areas of Latin America, and who is obviously conversant with his sources. It is more advanced than Whitbeck's excellent text, and less tied to the physiographic region, and altogether fuller, than Schmieder's work. Its general organization is quite unlike that adopted by Pierre Denis, some portions of whose pioneer volumes are by no means superseded by this much later work. It differs from all three of these well-known texts in dealing not alone with South America, but with Latin America. Of its 859 pages 148 are devoted to Mexico and Central America, and 93 to the West Indies.

In spite of the size of the book the author's chief problems must have been what to omit, and how to preserve a reasonable proportion in dealing with vast areas for much of which only very inadequate information as yet exists. His emphasis is on the human rather than the physical, and such unity as the work achieves derives from accounts of racial make-up, culture, and modes of land-holding, common, in however various degrees, to the republics of Latin America. The very short introduction (structure, climate, vegetation, and general types of historical evolution and occupancy) though stressing important considerations and characteristics, strikes one as rather thin. The subjects which it touches are in fact more fully treated in the separate sections on the various republics. Even so, we miss in this introduction any reference to factors inherent in the shape and world position of Latin America; and there is in it almost no reference to the physiographic build of the whole country.

In the body of the book the various republics are dealt with separately, but on parallel lines. In each case the main theme is supplied by the unit dot population map which accompanies each account. The author assumes a considerable responsibility in placing the dots just where they are placed. He probably, in most cases, has enough information (*e.g.* from detailed maps) to justify the distribution shown. The maps are striking, and in any case are to be preferred to those obtained by the even tinting of those administrative areas for which population data are available. For the most part, as the author is at pains to point out, the distribution is one of "clusters" of population, and the location of these is often explained by the land form, land use, and vegetation maps, which are provided in the case of each republic.

In most of the countries of Latin America neither the actual coasts, nor the areas of interior lowland, are thickly populated. Yet population tends to the continental periphery and is often concentrated at intermediate altitudes. The unit dot population maps in general indicate a sporadic and irregular distribution of population clusters, and serve to direct immediate inquiry as to the factors at work (*cf.* for example Gilman's most interesting clusters in his map of Tanganyika (*G. Rev.*, 1936) with the ones here shown for Brazil). A complete explanation in terms of physical circumstance is not usually forthcoming. The author is properly cautious in his correlations. Throughout emphasis is laid on racial and historical factors. The treatment is dynamic not static. The evanescent character of much of the land utilization is emphasized; the lack of long-period adjustments of man to space. This is a recurring theme, and is especially well

developed in the sections on Brazil. Indeed Professor James is to be congratulated upon bringing some sort of coherence and argument into a large-scale account of this somewhat amorphous sub-continent.

Professor Raisz' physiographic diagrams are used as land-form maps for Brazil, Colombia, and Venezuela. The technique is less elaborate for the physical maps of the remaining republics, but they are simple, clear, and effective. The book is in fact well supplied with maps and diagrams; but actual altitude, as well as the nature of the surface, is often of great importance, and of course the serious student will do well to supplement his reading by the use of the most detailed contoured maps at his disposal.

The human and economic geography of Argentina is satisfactorily treated, but a fuller account of the Parana river, its regime, its flood plain and delta, traffic and ports, would not have been out of proportion. Good use has been made of the significant articles by P. Nyus which have appeared in recent years in *Foreign Agriculture*, and which deal with land use on the Pampas.

Professor James keeps the threads of his main arguments in sight through a maze of material, and maintains a sense of proportion throughout; and if this involves the omission of this or that detail which might well have been included, it nevertheless gives to the whole a unity of outlook rare in major geographical texts. In the next edition, there should be many, we would prefer to see some of the trade and production statistics in graphical form, thus covering longer periods, but no more space. In an appendix is given a most useful reference list of 293 items, all published since 1930. There are numerous and, for the most part, significant photographic illustrations, many of them air views.

L. R. J.

PHYSICAL AND BIOLOGICAL GEOGRAPHY

GEOMORPHOLOGY: Part I, an introduction to the study of landforms. By C. A. Cotton. Third Edition. *Christchurch, N.Z.: Whitcombe and Tombs*, 1942. $8\frac{1}{2} \times 5$ *inches;* viii + 262 *pages; illustrations and diagrams.* 10*s* 6*d*

The scope of this, an introduction to the Study of Landforms, is that of an intermediate text-book. It fills this role satisfactorily and is written in clear simple language which makes for easy reading. The teachings of W. M. Davis serve as its background, and in this volume, Part I, the effect of weathering and water upon the rocks beneath, and the modifications imposed by their composition and attitude is considered. The treatment is conventional. Processes are emphasized and the effect of rock hardness and robustness sufficiently recorded though kept in a rather subordinate place. The importance of the materials below does get its full mention in the discussion of the skeletons of that fabulous monster, the peneplain, which no one has ever seen but whose dissected surfaces "survive longest on the hardest rocks."

The book is illustrated with numerous half-tone reproductions of photographs and nearly as many rather uninspiring line diagrams. Only a small proportion of the former are sufficiently clear to have any instructive value. In this respect the book is disappointing when the illustrations at the back of the author's recent 'Landscape' are recalled, and it would certainly have been better to have had one good picture of a phenomenon than two or three indifferent ones. There is one noteworthy diagram in a class by itself showing slumping at Cornish Head (Fig. 29). Many of the illustrations are from New Zealand. The list of contents and the index include reference to what has been relegated to Part II, namely desert, ice, volcanoes, and coastal phenomena.

J. V. H.

GENERAL

THE GEOGRAPHICAL LABORATORY. By GRIFFITH TAYLOR. *Toronto: Univ. of Toronto Press*, 1942. (*London: Humphrey Milford.*) 9×6 *inches; 114 pages; sketch-maps and diagrams*

Those who know the author of this little book, and many more who are familiar with his writings, will learn without surprise that it is unusual and highly personal. As the sub-title explains, it is a "practical handbook for a three years' course in North American universities," but evidently it is primarily for students at Toronto and for this reason is specially interesting as indicating the character of geographical education in the first Canadian university to organize a Department of Geography. Yet it is essentially a book of practical exercises and, despite the help of the syllabus of lectures and the author's work 'Environment, race and migration,' much is left to the imagination of those who have not been students in Toronto. Nevertheless it is safe to say that every teacher whether in university or school who uses the book will find in it some, perhaps many, suggestions for improving his own practical teaching.

The expressed object of Professor Taylor's courses is to present geography as a series of exercises in deduction and the purpose of the practical courses is to enable the student to make "personal discoveries" in regard to geographical correlation. Eighty-three subjects of most varied character are treated, each referring to the text-book above mentioned or to some other named work. Most of the matter consists in an abundance of brief questions and of summary directions for the construction, by drawing or otherwise, that must precede the answering of many of these. Thus for example the courses outlined involve the use of certain simple instruments which the students are to make; numerous topographic and other maps; and the author's "quograph." They call for construction of such things as strip-diagrams, block-diagrams, mantle-models, mantle-maps, and hythergraphs, some of these being old friends under new names.

While the numerous figures are nearly always interesting and suggestive they are somewhat roughly drawn. There may be merit in this; less skilful students will perhaps be encouraged to equal them the more easily. But, even so, it is unfortunate that the sides of block diagrams, presumably of rectangular areas, are shown diverging from front to back. A. G. O.

THE MONTHLY RECORD

KÖITUÖK ON THE POTARO

In the official map of British Guiana the great fall on the Potaro is given the name Kaieteur. It is regrettable that this wonderful fall, which is five times as high as Niagara and twice the height of the Victoria Falls, should be given a name so far removed from the real name. The fall is in that part of the country which is inhabited by the Patamona tribe and no other; it was named by them. During the fifteen years that I worked among the Indians of the British Guiana hinterland I used to spend several weeks, sometimes months, among the Patamonas, talking to them nearly all day. For many years I used to pass the great fall twice a year, and I can affirm most positively that they call the fall Köituök. The *öi* and the *uö* are diphthongs with a strong stress on the first vowel in each case. The word means "The old man's fall"; Köi = old man, tuök = fall. Köituök represents on the R.G.S.II System the word as pronounced by the Patamonas.

It is surely an anomaly that whereas we have on the official map: Amatuk, Waratuk, Muretuik, Kambaduk, Orindouk, we have Kaieteur. The terminations -tuk, -tuik, -duk, and even -douk, are clearly efforts to represent the Patamona affix -tuök; the affix should be written the same way in each case.

There is no doubt that there is a *k* at the end of the word. Once I was going up the Potaro in company with Mr. and Mrs. Robson and Miss Cumming. As we were approaching Köituök, Mr. Robson said to me: "You know, Father, I think you are wrong in putting a *k* at the end of Kaieteur. There is a Patamona here who pronounces it without a trace of a *k*." Then, turning to the Indian, he said: "Isn't the name of the fall we are coming to Kaieteur?" "Yes," replied the Indian. "There you are," said Mr. Robson. "Wait a bit," I said, "I will ask him again presently in a different way." Accordingly, about half an hour later, I said to the same Indian: "By the way, this gentleman wants to know what you Patamonas call this fall in your own language." He answered Köituök, making a very strong stress on the last *k*. "That settles it," my three companions called out in chorus. "There is no doubt whatever that the name ends in a *k*."

That the last syllable is tuök and not tuk is equally certain. Besides my Patamona friends, I invariably had one or two Makushi Indians with me, when I passed by Köituök. The Makushis have a rooted objection to ending a word with a consonant, with the one exception of the termination -ng. And so in talking of all those above-mentioned falls they *always* end the name with -tuö instead of -tuök. Now if the Patamona ending of the words was -tuk, the Makushis would drop the k and say -tu, *e.g.* Amatu, Waratu, Köitu. But they invariably say Amatuö, Waratuö, Köituö. CUTHBERT CARY-ELWES, s.j.

ETHNOGRAPHICAL MAP OF THE BALKAN PENINSULA

The Royal Yugoslav Embassy have reproduced the elaborately coloured ethnographical map made by Professor Jovan Cvijić for his book 'La Péninsule Balkanique,' published in 1918, and have presented several copies to the Society, some of which may be borrowed by Fellows working on Balkan ethnography. Libraries desiring copies are invited to apply to the Embassy at 195 Queen's Gate, London, S.W.7.

THE CANADIAN ALPINE JOURNAL, VOL. XXVIII

There is some special significance about this volume (28 (1941) No. 1, published July 1942), since it is the last one edited in part by A. A. McCoubrey, whose untimely death on 12 February 1942 has prompted the Alpine Club of

Canada to dedicate it to him. As a past-president of that Club, as a member of the Alpine Club (London), as well as a Fellow of our Society, McCoubrey's name is well known, but few in this country are perhaps aware of his achievements in the western ranges of Canada, both on foot and on ski, and especially his exploratory mountaineering and first ascents in the Purcells and Selkirks. The *Canadian Alpine Journal*, of which for twelve years he was the able editor, has always abounded in interest for the mountain explorer; and although the number of untrodden peaks in the more accessible ranges has in recent years been reduced to a small part of the whole, yet in the present issue Dr. J. Monroe Thorington gives a most interesting summary of the latter in his article "Unclimbed peaks in the Canadian Rockies." From this one notes that the central peak (11,000 feet) of Mount Bryce, south of the Columbia Icefield, is the loftiest unclimbed summit in the Rockies, while a number of others, including the crest of 10,300 feet named after the writer of this note, "still await their stonemen." The present writer almost experiences a similar challenge to that offered our eminent statesman-mountaineer some years ago, when the latter felt compelled to make the first ascent of Mount Amery. From reports lately received however there may now be few of these virgin summits which have not fallen to American Mountain Troops, who have been in intensive training in those parts.

Other articles are to be found which contain a good deal of geographical as well as mountaineering interest. From the historical point of view mention particularly may be made of W. A. Don Munday's (well known for his own pioneering of the approaches to Mount Waddington) contribution on "Early explorations in the Coast Mountains," mainly those of William Downie during the middle of last century, where, as the author declares, "romance of exploration has lingered longer . . . than in the other alpine ranges of British Columbia." Another good feature is "Geology for mountaineers," by Charles S. Ney, in which a convincing claim is made that this science may profitably be made more than a mere casual interest. N. E. O.

PLACE-NAMES COMMEMORATING VANCOUVER

We have received from Major F. V. Longstaff a reprint of his paper in the *British Columbia Historical Quarterly* (July 1942) summarizing the history of the place-names which commemorate Captain George Vancouver. Vancouver stated that the "seat of my ancestors" was Couverden (Koevorden) in the Netherlands Province of Drente, and gave the name Point Couverden to the western point at the entrance of Lynn Canal, on the coast line of what is now southern Alaska. It seems probable that the surname was derived from "van Couverden," though there is now apparently no documentary evidence for this, or for the connection of Vancouver's ancestors with that town. It will be recalled that Vancouver in 1792 established the insularity of the present Vancouver Island. In testimony of his good relations with the Spanish navigator, Juan Francisco de la Bodega y Quadra, who was also at work in these waters, he called this island "the Island of Quadra and Vancouver." However by the middle of the next century this rather cumbrous name had been replaced by the present form. The association of Bodega y Quadra with this area was not restored until 1903, when the Geographic Board of Canada gave the name Quadra to a small island at the southern end of the north-east coast of Vancouver Island. Except for Point Vancouver, the position of which on the Columbia river is doubtful, the explorer's name was not given to any other feature during his life-time.

In 1824, George Simpson of the Hudson's Bay Company established a post about 70 miles up the Columbia on the northern bank, naming it Fort Vancouver

"to identify our claim to the Soil and Trade with his discovery of the River and Coast on behalf of Gt. Britain." This post is the oldest settlement continuously occupied by the white man in the State of Washington, and except for a brief interval has borne the name Vancouver. The name Vancouver for the city which grew up at the terminal of the Canadian Pacific Railway on Burrard Inlet first appears in 1884, when the line was being built, the City of Vancouver incorporated two years later, comprising the former village of Granville. In addition to summarizing later developments in this area, Major Longstaff discusses the occurrence of Vancouver as a place-name in other parts of the world, and supplies details of the explorer's naval career.

CHANGES IN THE PROVINCES OF THE DOMINICAN REPUBLIC

We have been informed by the Foreign Office that a new province of the Dominican Republic, the Province of San Rafael, has been established from 1 January 1943. The new province, named after President Trujillo, consists of a strip of territory on the central part of the Dominico–Haitian frontier apparently varying in width from ten to thirty kilometres. The headquarters are the town of Elias Pina. San Rafael is taken out of the Province of Benefactor, which was itself created in 1938 by a division of the Province of Azua, formerly the largest in the Republic. In 1939 two other provinces were created, by division from the provinces of Monte Cristi and Azua. These new provinces were at first called Dajabón and Monte Plata, but were subsequently altered to Libertador and Arzobispo Merino.

MEETINGS: SESSION 1942–43

Christmas Lectures, 1 January 1943: Camps in New Guinea. By Miss Evelyn Cheesman; 4 January 1943: The war at sea. By Admiral Sir William Goodenough

Eighth Meeting, 11 January 1943. The President in the Chair

Paper: The Japanese operations in New Guinea. By Miss Evelyn Cheesman

Ninth Meeting, 18 January 1943. The President in the Chair

Elections: Mrs. Celia A. Barker; Kenneth William Barrell; William G. Bennett; Rev. L. Dunwell; Rev. F. J. Finch, M.A.; V. C. R. Ford; Rev. Wilfred Gardner; Michael C. Gillett; George F. Hardcastle; Captain W. H. Hore, R.N.; Rev. Theodore R. Jackman; Henry C. Loader; Miss M. T. Molloy; The Hon. Clive Pearson; Mrs. M. M. Prendergast; Henry Rees, B.SC. ECON.; Arthur M. Skeffington, B.SC., M.R.S.T.

Paper: Ethiopian Highlands. By W. E. D. Allen

Tenth Meeting, 25 January 1943

Geographical Films: Java, Sumatra, Celebes, Flores, and Bali. By Major Reginald Wyndham